

PSYCHOLOGICAL ABSTRACTS

VOL. XIV, No. 6

JUNE, 1940

GENERAL

(incl. Statistics)

2700. Baldwin, J. M. [Ed.] *Dictionary of philosophy and psychology; vols. 1 and 2.* (Reprint ed.) New York: Peter Smith, 1940. Pp. 644; 892. \$10.00 per volume.

2701. Banissoni, F. *Psicologia sperimentale.* (Experimental psychology.) In *Various, Un secolo di progresso scientifico italiano, 1839-1939.* Rome: S.I.P.S., 1939. Vol. IV. Pp. 377-427.—The history of Italian psychology may be divided into five main periods, the first of which was initiated by Sergi's *Principles of psychology*, the second by the foundation of three chairs for the teaching of experimental psychology (1906-1916), the third by the first application of psychology to the selection of aviators (1916-1922), the fourth by the beginning of the Fascist regime (1922-1939), and the fifth by the appointment of a commission for the purpose of applying the discoveries of psychology to the work of the Italian National Research Council. The most celebrated psychologists are Sergi, Panizza, Mantegassa, Mosso, Morselli, Lombroso, Bianchi, De Sanctis, Credaro, Kiesow, Della Valle, Gemelli, Benussi, and Ponzo. In conclusion an examination is made of the most recent applications of psychology to psychotechnics.—G. Fiorito (Rome).

2702. Beggs, G. E., Jr., & Brigham, C. C. *And how is your phonograph?* *Music Educators J.*, 1940, 26, No. 5, 44-46.—A rating scale for phonographs is offered. It is based on the following factors: pick-up, percentage of distortion, output, response, flatness, and expansion.—P. R. Farnsworth (Stanford).

2703. Bizzarri, A. *Attività psichica e processi fisiologici.* (Psychological activity and physiological processes.) Bologna: Licinio Cappelli, 1939.—The author discusses the intimate correspondence existing between the two aspects of human activity, the psychological and the physiological, with reference to the following important problems: the psychophysical relationship, the physiological correlates of sensation, the definition of the "psychic," the relationship between the psychism and the organic totality, mnemonic integration, and the seats of the intellectual processes.—R. Ricci (Rome).

2704. Brederveld, J. *Aspecten der psychologie.* (Aspects of psychology.) *Tijdschr. Phil.*, 1939, 1, 567-576.—Psychology must remain a discipline with a mixed conceptual content. It cannot eliminate either purely phenomenal experience, or, on the other hand, hypostatic concepts involving the non-phenomenal. A system dealing only with experiences is philosophical as well as empirical, and is

directed toward the ego as well as toward the objective world. Thus it contains the potentialities of all possible sciences, including itself.—H. Beaumont (Kentucky).

2705. Cohen, M. R. *Some difficulties in Dewey's anthropomorphic naturalism.* *Phil. Rev., N. Y.*, 1940, 49, 196-228.—No man has done more than John Dewey to keep alive the fundamental ideals of liberal civilization, but his anthropomorphic naturalism subordinates metaphysical to moral considerations, and his undue fear of rationalism leads him into nominalism and conceptualism. Due regard for the essential role which mathematical or theoretical development plays in experimental work is necessary to remove the false dualism between experiment and rational determination. Dewey is also mistaken in thinking that knowledge and reflection arise only to get us out of trouble. The desire to know for its own sake is a fact of human nature, and the history of many branches of science shows that their origin was remote from teleological interest. Dewey insists that philosophy should be a method of understanding and rectifying specific social ills; but the special duty of the philosopher is to put the pursuit of truth first, and this often requires ethical neutrality to the issues of the day. The practical necessity for making a choice does not remove our ignorance. Too often has devotion to temporal causes turned philosophical light into partisan heat.—M. F. Martin (West Springfield, Mass.).

2706. Conrad-Martius, H. *Schöpfung und Zeugung.* (Creation and production.) *Tijdschr. Phil.*, 1939, 1, 801-826.—Creative achievements involve two factors: the subjective creation within the individual, and the materialization of that creation through which it passes from existential nothingness to existential reality. In his products, the individual multiplies and expresses himself without effecting a new creation.—H. Beaumont (Kentucky).

2707. Dewey, J. *Nature in experience.* *Phil. Rev., N. Y.*, 1940, 49, 244-258.—Dewey thanks Cohen and Hocking for criticisms which have enabled him to clarify his views. The passages on which Cohen's fundamental criticisms are based have been interpreted differently from what Dewey intended. Hocking has broken off one aspect of experience, thought, from another aspect, observation. Reality is more than a double-barrelled word. Its ambiguity extends beyond the senses Hocking mentions. Instead of isolation of the material of knowledge, there is continual interaction with other forms of experience, and the worth (or "reality") of knowledge is to be judged on the basis of the control exercised by it over the things of non-cognitive

experience. Portrait.—*M. F. Martin* (West Springfield, Mass.).

2708. *Ducasse, C. J. Philosophy and natural science.* *Phil. Rev., N. Y.*, 1940, 49, 121-141.—The author contends that the basic difference between philosophy and the sciences is one of subject matter. The distinctive subject matter of philosophy is mind, in the ordinary English sense of the word. To regard introspective psychology as a part of philosophy is the traditional view. Much contemporary psychology is not about mind at all. The author deplores the "high-handed verbal procedures" of those who "construct an arbitrary language, which, by using familiar words in novel senses, makes it seem that one is talking about the things these words familiarly denote, when in fact one is talking about something very different. For example, what naturalism chooses to call Mind is something which in ordinary English would be called the behavior of bodies that have minds." Just as natural science has a right to postulate atoms, protons, magnetic fields, etc., to explain its primary facts of observation, so philosophy has a right to postulate mental entities to explain the primary facts discovered by introspection.—*M. F. Martin* (West Springfield, Mass.).

2709. *Ferguson, J. K. W. A stereotaxic instrument for placing stimuli or lesions in the brain.* *Amer. J. Physiol.*, 1939, 126, 490-491.—Abstract.

2710. *Ferrari, F. Il meccanismo della psiche e la sua cura.* (The psychological mechanism and its care.) Milan: La Prora, 1937. Pp. 383. L. 15.—*R. Ricci* (Rome).

2711. *Foley, J. P., Jr. Ellis Stanley Joseph.* *Science*, 1939, 88, 368-369.—Obituary of a well-known animal collector.—*F. A. Mote, Jr.* (Brown).

2712. *Henderson, E. H. Values, time, and consciousness.* *J. Phil.*, 1940, 37, 152-161.—A discussion of the theory that one essential characteristic of values is everlastingness, i.e., that values exist through an unlimited quantity of time within the bounds of time. The objections to this theory, based on human value experience, are: some values are eternal in a qualitative sense as experienced, not in the quantitative sense of everlastingness; if everlastingness is an essential characteristic of values, they can never be known, for even though we had direct intuitions of them we could never discover their everlastingness; if everlastingness is an indispensable attribute of value, all usual values must be discarded; if values are everlasting, such non-human entities as the total energy of the world are the real values; the eternity of values implies that values must always be sought but can never be attained.—*J. H. Jackson* (Brown).

2713. *Hocking, W. E. Dewey's concepts of experience and nature.* *Phil. Rev., N. Y.*, 1940, 49, 228-244.—Hocking diverges from Dewey concerning (1) the relation between experience and reality, and (2) the relation between thought and reality. Reality is a double-barrelled word. In one sense, it is coextensive with experience. In the other sense,

it is an object of search, not on the surface. As inquiry moves toward understanding, it moves toward the real. The more theory (if it is true theory) the more reality. Experiment is an arrangement of controllable events such that a terminal sense-fact shall mean a verdict of life or death to a theory. Speculation is embedded in the course of facts. Operationalism is a counsel of despair. Reality lies not in the operations or eventualities but in the entities whose behavior responds. We have not yet finished defining those entities, but this is very different from saying that there are no such entities. Our philosophical era has accepted too easily a defeatist attitude in regard to its certainties. Our certitudes are perhaps best held less in the shape of inflexible axioms than in the shape of a persistent sense of direction in the succession of our hypotheses.—*M. F. Martin* (West Springfield, Mass.).

2714. *Hudson, J. W. Recent shifts in ethical theory and practise.* *Phil. Rev., N. Y.*, 1940, 49, 105-120.—During the last two generations ethical theory has shifted from formalism to teleology. The old ethics emphasized duties and rules, supposedly based upon God's will. The new ethics emphasizes self-realization, the authority of our fundamental and permanent desires over our passing wants. In popular moral judgments, there is a steady increase of tolerance. There is also increased recognition of the social nature of the individual and of the importance of the political and economic orders. The notion of democracy has left "rugged individualism" behind. Liberty is no longer a mere matter of individual freedoms not to be encroached upon, but is increasingly regarded as a guarantee of conditions favorable to achieving the social objective. If ethical theory is to progress further, the data of ethics should be revised in terms of modern knowledge. As the science of psychology has grown, ethicists have referred to its findings less and less. The prevailing self-realization theories remain vague in the absence of an adequate psychology of desire.—*M. F. Martin* (West Springfield, Mass.).

2715. *Janus, S. Q. The role of definition in psychology.* *Psychol. Rev.*, 1940, 47, 149-154.—Three propositions are presented regarding definitions in science: (1) that they are the end-products of research and not a prerequisite to it; (2) that they involve assertions whose truth or falsity can be determined; and (3) that they are relative to some specific contextual system in which they are constructed. From the first proposition it follows that exact operational definitions of terms and concepts (like "attitude") must wait on experimentation, but this should not exclude their use in the meantime. From the third proposition it follows that two definitions which are incompatible in the same system may not be so if construed in reference to different systems.—*A. G. Bills* (Cincinnati).

2716. *Jellinek, E. M. On the use of the intra-class correlation coefficient in the testing of the difference of certain variance ratios.* *J. educ. Psychol.*, 1940, 31, 60-63.—A statistic for evaluating

differences of variance ratios is discussed and illustrated.—*R. M. Bellows* (Maryland).

2717. *Klaauw, C. J. v.d. Bibliographia biotheoretica*. Vol. 3, Part 1. Pp. 232. Leiden: E. J. Brill, 1940.—This bibliography contains 4551 titles of books and articles in the field of theoretical biology published in the years 1935-1939: (1) theories, (2) mathematics, (3) the logic of biology, such as concepts, ideas, etc. Among the 22 headings there is one on psychology with 324 titles, one on psychopathology with 449 titles, and one on the psychophysical relation with 86 titles. A brief supplement containing additional literature will appear in 1941.—*C. J. van der Klaauw* (Leiden).

2718. *Krasno, L., Hoffman, E., & Freeman, G. L. An electro-pneumatic method of recording respiration in small animals*. *J. comp. Psychol.*, 1940, 29, 135-138.—The animal is placed in a sealed glass chamber in which it is free to move around. Breathing is recorded by means of a delicate tambour connected to the chamber. The tambour forms part of a condenser-microphone which converts air displacements into electrical impulses. Oxygen is fed into the chamber and carbon dioxide is taken up by a soda-lime compartment.—*N. L. Munn* (Vanderbilt).

2719. *Kroh, O. Vom Auftrag deutscher Erziehungspychologie*. (The task of German educational psychology.) *Z. pädag. Psychol.*, 1940, 41, 1-8.—Kroh discusses the German origin of scientific psychology (from Melanchthon), the evolution of German educational psychology, and the national characteristics of each. The viewpoint and purpose of German psychology have always been totalitarian—to get at the center of human existence, and also a philosophic search for a clarification and determination of all processes and traits of human life. Hence the development of characterology, typology, constitutional and developmental science and eugenics, all culminating in racial anthropology. The applications to educational psychology have been youth study, with its specifically German attitude of belief in youth; scepticism of test psychology; determination of the normal world-view of each developmental stage; and a dynamic view of man. The peculiar determination of the German nature can be understood only through the creative powers of the personality as exemplified in the artistic, youth, and folk movements, and organic education.—*M. E. Morse* (Baltimore).

2720. *Lundholm, H. Reflections upon the nature of the psychological self*. *Psychol. Rev.*, 1940, 47, 110-126.—The dichotomy between self and surrounding world, as popularly understood, implies a real world, a self which can be aware of it, other selves which form a part of the external world, and which can be known by, and can know the objective aspect of the given self; yet each self knows itself subjectively also. Hence a self can not only cooperate effectively with the objective world but also with other selves. The boundaries of your own self, as experienced by you, are variable, expanding

and contracting with conditions, but you experience the boundaries of other selves as constant. Your subjective self expands with active striving to include the auxiliary objects you use in striving. It contracts when you relax or cease striving. The sense of self disappears in extreme relaxation, and we exclude from the self systems of impulses that we cannot control, as autonomic functions, etc. This explains such abnormal phenomena as alternating personality with and without amnesia, and the "feeling of unreality." Expansion of the subjective striving self occurs in each member of a cooperating group of persons. Such a union might be called a "group mind."—*A. G. Bills* (Cincinnati).

2721. *MacIver, R. M. The modes of the question why*. *J. soc. Phil.*, 1940, 5, 197-206.—*W. Varvel* (Iowa State University).

2722. *Maruyama, R. Kakkanka to shukanka no shinri to kyōiku*. (Objectifying and subjectifying psychologies and education.) *Kyōiku Shinri Kenkyū*, 1939, 14, 13-27.—According to Müller-Freienfels, psychology is classified into subjectifying and objectifying psychologies, and from this standpoint several problems of education are discussed.—*R. Kuroda* (Keijo).

2723. *Meisling, A. A. Et lanterneapparat til undersøgelse af farvesansen hos sjøfærende*. (Projection apparatus for the investigation of color discrimination among mariners.) *Ugeskr. Laeg.*, 1940, 102, 154-156.—Description of an apparatus which permits specified time exposures of red, green, and shades of gray, from clear white to smoke gray, while permitting the operator and the testee to view the exposed color simultaneously. The exposure area is 1 mm. in diameter.—*N. J. Van Steenberg* (Iowa).

2724. *Mitchell, T. W. Obituary: Professor Sigmund Freud*. *Proc. Soc. psych. Res., Lond.*, 1939, 45, 344-346.—An appreciation of the life and work of Freud, with particular reference to his work in subconscious motivation and his evaluation of the evidence for telepathy.—*J. G. Pratt* (Duke).

2725. *Petter, D. M. de. Impliciete intuïtie*. (Implicit intuition.) *Tijdschr. Phil.*, 1939, 1, 84-104.—Intellectual intuition is a prerequisite for a critical realistic problem, explains its inevitability, and determines the only possible modality of its solution. Thus the concrete existential problem must be conscious in some form other than as such and explicitly, because in such a case there would be no problem; but when it is present as an abstract concept in intellectual consciousness, the problematical situation relates to its validity for existential reality. The solution of the implicit problem cannot take the form of a direct conscious contact between the intellectual activity and the concrete problem, but must consist of a discovery of the various approaches to such a contact within the limits of the explicitly conscious.—*H. Beaumont* (Kentucky).

2726. *Pillsbury, W. B. Margaret Floy Washburn (1871-1939)*. *Psychol. Rev.*, 1940, 47, 99-109.—Trained first under Cattell and later under Titchener,

Washburn's major interests were animal psychology, for which she wrote the first textbook in 1907, called *The Animal Mind*, and the system of motor psychology which was embodied in her *Movement and Mental Imagery*. In addition, she published 67 *Minor Studies from Vassar College*. As a comparative psychologist one of her chief interests was in the criteria indicating the presence and degree of consciousness in animals. Her major theoretical interest was devoted to the problem of the relation of motor processes to conscious processes. She held that "consciousness accompanies a certain ratio of excitation to inhibition in a motor discharge, and if the amount of excitation either sinks below a certain minimum or rises above a certain maximum, consciousness is lessened."—A. G. Bills (Cincinnati).

2727. Rashevsky, N. *Advances and applications of mathematical biology*. Chicago: Univ. Chicago Press, 1940. Pp. xiii + 214. \$2.00.—This may be considered a progress report in the development of a system of biology based on physical concepts. As contrasted with the author's earlier book (*Mathematical Biophysics: Physico-Mathematical Foundations of Biology*) the present account considers some applications of theory to observations. Those of most interest to the psychologist are found in the final five or six chapters. Here data on sensory discrimination, reaction times, and perception of visual patterns are related to theory. Other sections of the book deal with cell theory and peripheral nerve activity.—C. H. Graham (Brown).

2728. Read, C. B. *A note on reliability by the chance halves method*. *J. educ. Psychol.*, 1939, 30, 703-704.—Information regarding the possibility of different reliability coefficients being obtained by arbitrary choice of different chance halves of the Iowa high school content examination was obtained. Spearman-Brown reliability coefficients ranged from .909 to .923 for 8 procedures of selecting chance halves.—R. M. Bellows (Maryland).

2729. Richardson, M. W., & Kuder, G. F. *The calculation of test reliability coefficients based on the method of rational equivalence*. *J. educ. Psychol.*, 1939, 30, 681-687.—Computation of reliability estimates by the formula

$$r_{tt} = \frac{n}{n-1} \cdot \frac{\sigma_t^2 - \sum pq}{\sigma_t^2},$$

in which r_{tt} is the estimated reliability of the test, σ_t is the standard deviation of the distribution of scores on the test, p is the proportion of correct answers to a test item, $q = 1 - p$, and n is the number of items in the test, yields values which are very nearly the same as estimates obtained by more rigorous formulas, and saves computational labor.—R. M. Bellows (Maryland).

2730. Ruyer, R. *Dualité de la psychologie*. (The dualism of psychology.) *Tijdschr. Phil.*, 1939, 1, 577-582.—The author distinguishes two aspects of psychology: general phenomenology and concrete psychology. The former includes the same dynamics which underlies biology and perhaps even micro-physics. Thus Pavlov's work has in part served to

complement Freud's studies, and Gestalt psychology rests on a philosophy of physics and a dynamics which are applicable in biology. This explains why psychology cannot become an autonomous science and must remain applied rather than theoretical. Its special field is to develop a characterological classification with manifold ramifications; its general task is to collaborate with physiologists on general phenomenology.—H. Beaumont (Kentucky).

2731. Schwangart, F. *Tierpsychologische Sammelberichte*. (Survey of literature of animal psychology.) *Arch. ges. Psychol.*, 1939, 104, 229-342.—A bibliography of 277 items, furnished with a name index. 20 books are included; the periodical material contains a large number of articles by naturalists and ornithologists. Papers offered at the 1938 A.P.A. meeting are listed by title only; the other items usually have descriptive and critical comments.—H. D. Spoerl (American International College).

2732. Sisson, E. O. *Human nature and the present crisis*. *Phil. Rev.*, N. Y., 1940, 49, 142-162.—M. F. Martin (West Springfield, Mass.).

2733. Stoddart, W. H. B. *Sigmund Freud*. *J. ment. Sci.*, 1940, 86, 190-192.—This is an obituary notice. Freud's professional history is briefly traced, attention being called especially to his development of psychoanalysis and his efforts to gain acceptance for its methods. His early interests in the physiology and anatomy of the nervous system, his work with Charcot and with Breuer, and his linguistic and general cultural knowledge are noted.—D. G. Ryans (Cooperative Test Service).

2734. Stoddart, W. H. B. *Henry Havelock Ellis*. *J. ment. Sci.*, 1940, 86, 192-193.—This is an obituary notice. Ellis was best known for the monumental work of his life, *Studies in the Psychology of Sex*. "Temperamentally he was an artist, regarding Living as the supreme art." He might well be designated as "a scientist who arose in art." He was an admirer of Freud, with whom he exchanged letters and publications. He was reclusive, but not exclusive. He had little respect for authority, but was never hostile and never bore ill-will. His output was large and his contributions numerous.—D. G. Ryans (Cooperative Test Service).

2735. Ushenko, A. *A theory of perception*. *J. Phil.*, 1940, 37, 141-151.—The representative theory that the percept of an object at a distance from the observer is located in the observer and represents the object, and the presentative view that the percept directly presents and is a part of the object are both in opposition to common sense, the representative theory being in conflict with the firm belief that we directly perceive a public world, the presentative theory being at odds with the belief that past events are not directly known. A theory of visual perception intermediate between these two views and not open to the same objections is developed. According to this theory the percept is a mixture of disposition and actuality located at the object, a determinable manifestation or realization

of the set of dispositions which constitute the object.
—J. H. Jackson (Brown).

2736. Van Wien, S. The Leland refractor. A method for refraction under binocular conditions. *Arch. Ophthal., Chicago*, 1940, 23, 104-111.—Two targets are each illuminated with red light provided by two bulbs, a dim and a bright, which may flash alternately or be kept steady. Over the bright lights are polaroids with axes horizontal; over the dim lights, polaroids with axis vertical. The eye not under test is covered with a polaroid with axis vertical, hence vision in this eye is only sufficient to control fixation, yet the patient feels that he is seeing binocularly at all times. Determinations are thus made under conditions of binocular vision, providing for the determination of lenses which give most satisfactory balance between accommodation and convergence, with cylinder axes adjusted for best binocular vision and with the two eyes balanced in respect to spherical correction. The red light was found empirically to be the most satisfactory; apparently it causes less stimulation to accommodation than other monochromatic lights.—M. R. Stoll (Ohio State).

2737. [Various]. [Report of the VII. congress of the Japanese Psychological Association in Tokyo, April 3-5, 1939.] *Jap. J. Psychol.*, 1939, 14, Special No.

2738. Walgrave, H. Newman's beschrijving en verantwoording van het werkelijk denken. (Newman's description and account of real thinking.) *Tijdschr. Phil.*, 1939, 1, 524-566.—Cardinal Newman's *Grammar* consists of two closely related parts: a fundamental discussion of cognition, and its special application to religion. The basic elements are (1) assent is unconditional and complete; (2) the illative sense bridges the gaps in logical evidence between immediate experience and the unknowable fact; (3) God-given first principles enable man to grasp the truth; (4) synthetic intuition based on independent corroborative probabilities causes the logical conclusion to coincide with concrete consequences. Applied to religion, this means that man (1) determines general phenomena of moral consciousness; (2) through these arrives spontaneously at the concept of a personal God; (3) attributes characteristics to his God; (4) attains an affective attitude towards his God; (5) modifies his philosophy of life on the basis of religious first principles; (6) looks for the antecedent probability of revelation to solve the contrast between man's imperfection and God's perfection; (7) accepts the historical evidence of the supernatural nature of Catholic revelation as consistent with these subjective expectations.—H. Beaumont (Kentucky).

[See also abstracts 2912, 3063, 3252, 3253.]

NERVOUS SYSTEM

2739. Allen, W. F. Studies on the olfactory system based on the effects of brain lesions on condi-

tioned reflexes in dogs. *Amer. J. Physiol.*, 1939, 126, 419-420.—Abstract.

2740. Armstrong, F., Maxfield, M., Prosser, C. L., & Schoepfie, G. Analysis of the electrical discharge from the cardiac ganglion of *Limulus*. *Biol. Bull. Woods Hole*, 1939, 77, 327.—Abstract.

2741. Barrera, S. E., & Ferraro, A. Effects of lesions at various levels of spinocortical sensory system in the macacus rhesus. *Amer. J. Physiol.*, 1939, 126, 428-429.—Abstract.

2742. Bender, M. B. Autonomic responses in monkey and cat. *Amer. J. Physiol.*, 1939, 126, 430-431.—Abstract.

2743. Bishop, G. H., & O'Leary, J. L. B and C nerve fibers. *Amer. J. Physiol.*, 1939, 126, 434.—Abstract.

2744. Bonnet, V. Contribution à l'étude du système nerveux ganglionnaire des crustacés. (Contribution to the study of the ganglionic nervous system of crustaceans.) *Arch. int. Physiol.*, 1938, 47, 397-433.—(Biol. Abstr. XIV: 4560).

2745. Botsford, E. F. Temporal summation in neuromuscular responses of the earthworm *Lumbricus terrestris*. *Biol. Bull. Woods Hole*, 1939, 77, 328-329.—Abstract.

2746. Boyd, T. E., & Maaske, C. A. Studies on vagal inhibition of inspiration. *Amer. J. Physiol.*, 1939, 126, 439-440.—Abstract.

2747. Brink, F., Sjostrand, T., & Bronk, D. W. Factors determining the frequency of chemically initiated nerve impulses. *Amer. J. Physiol.*, 1939, 126, 442-443.—Abstract.

2748. Brookhart, J. M. The respiratory effects of localized faradic stimulation of the medulla oblongata. *Amer. J. Physiol.*, 1939, 126, 446.—Abstract.

2749. Coakley, J. D. Electric potentials in the medial geniculate body of the cat. *Amer. J. Physiol.*, 1939, 126, 466-467.—Abstract.

2750. Cole, K. S., & Curtis, H. J. Electrical impedance of the squid giant axon during activity. *Amer. J. Physiol.*, 1939, 126, 468.—Abstract.

2751. Crescitelli, F., & Jahn, T. L. The effect of temperature on the electrical responses from the eyes of the grasshopper and moth. *Amer. J. Physiol.*, 1939, 126, 471-472.—Abstract.

2752. Culler, E. A. Differential effects of curare in the central nervous system. *Amer. J. Physiol.*, 1939, 126, 472.—Abstract.

2753. Curtis, H. J. Intercortical connections of the corpus callosum as indicated by evoked potentials. *Amer. J. Physiol.*, 1939, 126, 473-474.—Abstract.

2754. Darrow, C. W., & Gellhorn, E. Antagonism of adrenalin to the autonomic effects of metrazol. *Amer. J. Physiol.*, 1939, 126, 474.—Abstract.

2755. Davis, H., Davis, P. A., Loomis, A. L., Harvey, E. N., & Hobart, G. Analysis of the electrical response of the human brain to auditory stimu-

lation during sleep. *Amer. J. Physiol.*, 1939, 126, 474-475.—Abstract.

2756. Davis, P. A. The electrical response of the human brain to auditory stimuli. *Amer. J. Physiol.*, 1939, 126, 475-476.—Abstract.

2757. De Caro, L. *Fisiologia generale dei recettori e dei nervi. Elettrofisiologia.* (The general physiology of receptors and nerves. Electrophysiology.) In Various, *Un secolo di progresso scientifico italiano, 1839-1939*. Rome: S.I.P.S., 1939. Vol. IV. Pp. 191-197.—A summary is given of the work of Pacini, Panizza, Stefani, Corti, Ruffini, Golgi, and Massoni on the physiology of receptors and nerves. Electrophysiology started in Italy with the work of Galvani and Nobili. Attention is also called to the many studies made by Matteucci, Galeotti, Gayda, and Gemelli.—G. Fiorito (Rome).

2758. Derbyshire, A. J., & Corrigan, K. E. Electroencephalographic studies on irradiated animal brains. *Amer. J. Physiol.*, 1939, 126, 476-477.—Abstract.

2759. Dow, R. S. Localization of cerebellar cortical potentials in response to stimulation of various afferent connections. *Amer. J. Physiol.*, 1939, 126, 479.—Abstract.

2760. Dusser de Barenne, J. G., & McCulloch, W. S. Suppression of motor response upon stimulation of area 4-s of the cerebral cortex. *Amer. J. Physiol.*, 1939, 126, 482.—Abstract.

2761. Erickson, M. R. H. Brain lesions and mental functions. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39, (I) 106-108.—A review of the literature dealing with the relationship between localized brain lesions and concomitant mental phenomena reveals a startling lack of uniformity. The apparent contradictions may be due to the use of different tests of mental functions by different authors, to the lack of uniform criteria of "altered mentality," and to the fact that cases where the location of lesions is assumed to be identical may involve very different types of pathological processes. The author cites some of his current experimental work.—P. S. de Q. Cabot (Simmons).

2762. Feng, T. P., Li, T. H., & Ting, Y. C. Studies on the neuromuscular junction. XIV. The development of after-discharge at the amphibian n-m junctions treated with eserine. *Chin. J. Physiol.*, 1939, 14, 329-335.—(Biol. Abstr. XIV: 4616).

2763. Feng, T. P., Li, T. H., & Ting, Y. C. Studies on the neuromuscular junction. XV. The inhibition following eserine-potentiated and post-tetanically facilitated responses of mammalian muscles. *Chin. J. Physiol.*, 1939, 14, 337-356.—(Biol. Abstr. XIV: 4617).

2764. Gerard, R. W., & Libet, B. Action of drugs on potentials of isolated frog brain. *Amer. J. Physiol.*, 1939, 126, 500.—Abstract.

2765. Gibbs, F. A., & Grass, A. M. Cortical frequency spectra in three dimensions. *Amer. J. Physiol.*, 1939, 126, 502.—Abstract.

2766. Göthlin, G. F. The cable hypothesis and the conception that the conduction velocity for action potential waves is greater in coarser than in finer nerve fibres. *Skand. Arch. Physiol.*, 1939, 81, 310-315.—(Biol. Abstr. XIV: 4618).

2767. Graham, H. T. Effects of polarization on the action potential of C fibers. *Amer. J. Physiol.*, 1939, 126, 505-506.—Abstract.

2768. Grundfest, H. Properties of mammalian preganglionic B fibers. *Amer. J. Physiol.*, 1939, 126, 514-515.—Abstract.

2769. Hadidian, Z., & Hoagland, H. Chemical pacemakers for alpha brain wave frequencies in general paresis. *Amer. J. Physiol.*, 1939, 126, 517-518.—Abstract.

2770. Hare, K., & Geohegan, W. A. The influence of frequency of hypothalamic stimulation upon the response. *Amer. J. Physiol.*, 1939, 126, 524—Abstract.

2771. Harreveld, A. v. The motor innervation of a triply innervated crustacean muscle. *J. exp. Biol.*, 1939, 16, 398-402.—It is noted that part of the muscles in the claw of the crayfish *Cambarus clarkii* are innervated by two motor axons, the thicker one causing "fast" contraction, the thinner one "slow" contraction. Stimulation of a third fiber, thinner than the two motor ones, inhibits both kinds of contraction. The extreme sensitivity of crustacean muscle to mechanical injury is found to be due to the fact that the muscle fibers are innervated by a feltwork of nerve fibers which surrounds them. Processes of muscular conduction appear to be lacking in the muscle fibers themselves. Contractions are found in the same muscle fibers during stimulation of the "fast" as well as during stimulation of the "slow" axon. 9 references.—C. K. Trueblood (Harvard).

2772. Hartline, H. K. Excitation and inhibition of the "off" response in vertebrate optic nerve fibers. *Amer. J. Physiol.*, 1939, 126, 527.—Abstract.

2773. Hill, S. E. Contribution to local circuit theory. *Amer. J. Physiol.*, 1939, 126, 534.—Abstract.

2774. Hinsey, J. C., Phillips, R. A., & Hare, K. Observations on cats following pre- and postganglionic sympathectomies. *Amer. J. Physiol.*, 1939, 126, 534.—Abstract.

2775. Hoagland, H., Himwich, H. E., Campbell, E., Fazekas, J. E., & Hadidian, Z. Effects of hypoglycemia and pentobarbital sodium on the electrical activity of the dog cerebral cortex and hypothalamus. *Amer. J. Physiol.*, 1939, 126, 536-537.—Abstract.

2776. Hughes, J., Stewart, W. B., & McCouch, G. P. Cord potentials in spinal shock: multiple volleys. *Amer. J. Physiol.*, 1939, 126, 541-542.—Abstract.

2777. Hursh, J. B. Properties of growing nerve fibers. *Amer. J. Physiol.*, 1939, 126, 452.—Abstract.

2778. Kabat, H., & Dennis, C. Behavior of dogs after complete temporary anemia of the brain. *Amer. J. Physiol.*, 1939, 126, 549-550.—Abstract.

2779. Katz, B., & Schmitt, O. H. Electric interaction between two adjacent nerve fibers. *J. Physiol.*, 1940, 97, 471-488.—In a preparation of two adjacent non-medullated fibers from the limb nerve of *Carcinus maenas*, the authors determined quantitatively the excitability changes in one fiber during the passage of an impulse in the other, and the interaction between simultaneous impulses in both fibers. During the passage of an impulse in one fiber, as the potential wave approaches, the excitability of the resting fiber is at first reduced, then quickly increased above normal, and finally passes through a longer period of slight depression. Simultaneous impulses in both fibers produce various combinations of speeding and slowing, depending upon the phase relationship between the two impulses. The observed changes can be increased by soaking the axons in isotonic solutions of reduced salinity. The quantities of the observed effects are consistent with the electrical theory of nerve conduction. In spite of the powerful stimulus of the action potential in the conducting fiber, the external effects are small and a large safety margin is provided for "isolated conduction" in the individual fiber. The factors of this mechanism are discussed.—*M. E. Morse* (Baltimore).

2780. Keller, A. D. A further observation on atonia following transection of the brain stem through the pons. *Amer. J. Physiol.*, 1939, 126, 552.—Abstract.

2781. Keller, A. D. Apparent motor apraxia in the monkey. *Amer. J. Physiol.*, 1939, 126, 552-553.—Abstract.

2782. Kessler, M. M., & Kennard, M. A. Studies of motor performance after ablation of postcentral areas in monkeys. *Amer. J. Physiol.*, 1939, 126, 555-556.—Abstract.

2783. Knowles, F. G. W. Photomechanical changes in the pineal of lampreys. *J. exp. Biol.*, 1939, 16, 524-529.—*C. K. Trueblood* (Harvard).

2784. Langworthy, O. R., Grimmer, R. V., & Hesser, F. H. Rhythmic variation of respiratory excursion associated with bilateral injury of the efferent fibers from the cerebral cortex. *Amer. J. Physiol.*, 1939, 126, 560.—Abstract.

2785. Larrabee, M. G., Brink, F., & Bronk, D. W. The effect of chemical agents on the excitability of ganglion cells. *Amer. J. Physiol.*, 1939, 126, 561.—Abstract.

2786. Lee, L. Y. The mechanism of sensitization to acetylcholine by denervation. *Chin. J. Physiol.*, 1939, 14, 357-373.—(*Biol. Abstr. XIV*: 4567).

2787. Lindsley, D. B. The ontogenetic development of brain potentials in human subjects. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39, 127-130.—A report on recent experiments to determine the existence of an ontogenetic history of the electroencephalogram. Results indicate that alpha waves occur shortly after birth. The electrical activity of the sensorimotor region appears earlier than that of the occipital area. The author questions the significance of findings claiming a relationship between mental (rather than chronological) age and the frequency, amplitude, and percent time of the alpha rhythm. "The ontogenetic development of cortical potentials apparently begins before birth." The time of onset of the occipital alpha rhythm corresponds roughly with the development of the visual perceptive functions as revealed by behavioral indices.—*P. S. de Q. Cabot* (Simmons).

2788. Lissak, K. Liberation of chemical mediators by stimulating isolated nerves. *Amer. J. Physiol.*, 1939, 126, 564-565.—Abstract.

2789. Lloyd, D. P. C. The excitability cycle of inferior mesenteric ganglion cells following antidromic activation. *Amer. J. Physiol.*, 1939, 126, 565-566.—Abstract.

2790. MacIntosh, F. C. L'effet de la section des fibres préganglionnaires sur la teneur en acetylcholine du ganglion sympathique. (The effect of cutting the preganglionic fibers on the content of acetylcholine in the sympathetic ganglion.) *Arch. int. Physiol.*, 1938, 47, 321-324.—(*Biol. Abstr. XIV*: 4568).

2791. Magee, C. S., Bricker, J. W., & Gesell, R. The basic patterns of periodic potentials found along the respiratory arcs. *Amer. J. Physiol.*, 1939, 126, 575-576.—Abstract.

2792. Mann, P. J. G., Tennenbaum, M., & Quastel, J. H. Acetylcholine metabolism in the central nervous system. *Bio-chem. J.*, 1939, 33, 1506-1518.—(*Biol. Abstr. XIV*: 4569).

2793. Marrazzi, A. S. Inhibition at a sympathetic synapse. *Amer. J. Physiol.*, 1939, 126, 579-580.—Abstract.

2794. McCouch, G. P., Hughes, J., & Stewart, W. B. Cord potentials in spinal shock: contralateral effects. *Amer. J. Physiol.*, 1939, 126, 569.—Abstract.

2795. McCulloch, W. S., & Dusser de Barenne, J. G. The knee-jerk following facilitating and extinguishing stimulation of related cortical foci. *Amer. J. Physiol.*, 1939, 126, 570.—Abstract.

2796. Mettler, F. A., Ades, H., Lipman, E., & Culler, E. A. The physiology of the corpus striatum. *Amer. J. Physiol.*, 1939, 126, 584-585.—Abstract.

2797. Offner, F. Circuit theory of nervous conduction. *Amer. J. Physiol.*, 1939, 126, 594.—Abstract.

2798. O'Leary, J. L., & Bishop, G. H. Electrical activity of the lateral geniculate nucleus of the cat. *Amer. J. Physiol.*, 1939, 126, 594-595.—Abstract.

2799. Parrack, H. O. A comparison of the responses to continuous currents of excised nerve and nerve with a blood supply. *Amer. J. Physiol.*, 1939, 126, 597-598.—Abstract.

2800. Ramsay, J. A. A nerve-muscle preparation from the snail. *J. exp. Biol.*, 1940, 17, 96-115.—This paper describes methods of making a nerves muscle preparation from the snail (*Helix pomatia*)-together with apparatus used for obtaining record,

of its activity. The nerve is found to contain fibers falling into two groups according to their diameters. It is suggested that the thin fibers are derived from the thick. Evidence for neuromuscular facilitation but none for double innervation is reported. The muscle is found to contract in response to low concentrations of acetylcholine. 24 references.—C. K. Trueblood (Harvard).

2801. Rasmussen, A. T. Studies of the VIIIth cranial nerve of man. *Laryngoscope, St. Louis*, 1940, 50, 67-83.—A histological study of 37 normal vestibular nerves and 40 normal cochlear nerves from individuals ranging in age from 2 to 60 years shows: (1) The funicular pattern of the VIIIth cranial nerve of man varies greatly in different individuals and in different regions of the same nerve. When two distinct trunks are present, one is probably wholly vestibular, but the other is cochlear with a variable number of vestibular fibers. (2) The cross-section area of the vestibular portion is usually the larger, but in about one fifth of the cases the cochlear portion was distinctly the larger. (3) Only a few unmyelinated nerve fibers are present, and these are usually in the neighborhood of blood vessels. (4) The number of nerve fibers in the vestibular portion varies between 14,000 and 24,000, with an average of 18,500. (5) The number of nerve fibers in the cochlear portion varies between 24,000 and 40,000, with an average of over 31,000. These figures agree with the number of spiral ganglion cells, and may, therefore, be regarded as the number of auditory conductors entering the normal brain.—W. J. Brogden (Wisconsin).

2802. Rogers, W. M., & Parrack, H. O. Influence of age on functional survival of severed mammalian nerves. *Amer. J. Physiol.*, 1939, 126, 611-612.—Abstract.

2803. Rosenblueth, A., & Luco, J. V. The 5th stage of neuromuscular transmission. *Amer. J. Physiol.*, 1939, 126, 615.—Abstract.

2804. Rubin, M. A., & Freeman, H. Brain potential changes during cyclopropane anesthesia. *Amer. J. Physiol.*, 1939, 126, 617.—Abstract.

2805. Shurrager, P. S., & Culler, E. A. Reflex phenomena in the delimited spinal cord of the dog. *Amer. J. Physiol.*, 1939, 126, 630.—Abstract.

2806. Smith, K. U. The neural centers concerned in optic nystagmus. *Amer. J. Physiol.*, 1939, 126, 631-632.—Abstract.

2807. Spadolini, G. Il sistema nervoso vegetativo. (The sympathetic nervous system.) In Various, *Un secolo di progresso scientifico italiano*, 1839-1939. Rome: S.I.P.S., 1939. Vol. 14. Pp. 291-295.—A brief discussion is given of the results of recent studies on the following subjects: inhibition of the heart beat, the essential functions of the sympathetic system, the fibers which cause acceleration of the heart beat, fibers which govern stomach secretions, functions of the efferent nerves, the spinal centers which accelerate heart movements, the action of the sympathetic nervous system on hepatic glycogen, the

afferent sympathetic pathways, the receptor substances, the functional antagonism between the sympathetic system and the parasympathetic, the physiology of the sympathetic fibers, the substances which bring about a sympathetic and a mimetic parasympathetic action, and the physiopathology of the sympathetic system.—G. Fiorito (Rome).

2808. Steiman, S. E., & Therman, P. O. The electroencephalogram in lead-poisoned cats. *Amer. J. Physiol.*, 1939, 126, 636-637.—Abstract.

2809. Steinbach, H. B. Injury potentials of giant axons of the squid. *Amer. J. Physiol.*, 1939, 126, 637-638.—Abstract.

2810. Stewart, W. B., McCouch, G. P., & Hughes, J. Cord potentials in spinal shock: single volleys. *Amer. J. Physiol.*, 1939, 126, 639-640.—Abstract.

2811. Therman, P. O., & Forbes, A. Microelectrode records from the superior cervical ganglion. *Amer. J. Physiol.*, 1939, 126, 642.—Abstract.

2812. Walls, E. W. The central nervous system in the congenital absence of one leg. *Lancet*, 1940, 238, 123-124.—The spinal cord, brain stem, and cerebral cortex were examined histologically in a case of congenital absence of the left leg below the knee. The gray matter of the ipsilateral side of the cord shows in the lumbrosacral region the loss of the posterolateral group of cells. The white matter also shows changes, especially in the posterior columns, the left of which is definitely the smaller. In the upper part of the cord there is a distinct diminution in the left gracile tract. The brain stem presents a symmetrical appearance throughout. Betz-cell counts of both precentral gyri gave almost identical results.—W. J. Brogden (Wisconsin).

[See also abstracts 2709, 2841, 2881, 2892, 2893, 2938, 2943, 2947, 2967, 3001, 3021.]

RECEPTIVE AND PERCEPTUAL PROCESSES

2813. Amano, T. [On the function of the spatial distance between two objects to be compared.] *Jap. J. Psychol.*, 1939, 14, 346-366.—The paper is the author's further research on distance between two objects in simultaneous comparison. The results gained were quite the same as his previous study: the shorter the distance, the smaller the threshold.—R. Kuroda (Keijo).

2814. Burge, W. E. Further study on the electrical theory of anesthesia. *Amer. J. Physiol.*, 1939, 126, 451.—Abstract.

2815. Comberg, —. [New procedure for examination of vision with lowered illumination and of sensitivity to dazzling.] *Klin. Mbl. Augenheilk.*, 1938, 101, 96 ff.—Comberg has developed a procedure to be used especially in the examination of aviators, motor-truck drivers, seamen, and locomotive engineers. He has purposely departed from the method of testing light adaptation and dark adaptation, which wastes valuable time. Using a Zeiss apparatus constructed to his specifications, vision is tested after light adaptation following a

period of markedly lowered illumination. Immediately afterward, sensitivity to dazzling is tested, the amount of glare being made to correspond to driving conditions. The test does not take more than six minutes, so that the procedure can be applied to fairly large groups of professional workers.—(Courtesy *Amer. J. Ophthal.*).

2816. Crisp, W. H. [The psychologic problem in the detection of malingering.] *Trab. prim. Congr. brasil. Ophthal.*, 1936, 2, 575-568.—The author stresses the importance of using a friendly approach with compensation cases suspected of malingering. The different tests routinely used in this type of case are briefly mentioned. No matter how well prepared to mislead the physician the suspected malingerer is, sufficient proof of his bad faith can usually be accumulated by careful examination. As soon as proof of malingering has been secured the patient may be told that sufficient data have been obtained for an adverse report unless he is ready to cooperate in the attempt to show how much disturbance has actually resulted from the injury. After this approach the patient will often facilitate a more final analysis of his case.—(Courtesy *Amer. J. Ophthal.*).

2817. Dei Rossi, A. *Osservazioni su alcune curve acumetriche nella sordità a tipo di trasmissione.* (Observations on certain acumetric curves found in transmission types of deafness.) *Valsalva*, 1939, No. 12.—The author points out that deafness of moderate degree does not always show the typical acumetric curve with a drop at the lower tones. Sometimes mixed curves are found, while an examination of perception by bone conduction indicates that the inner ear is intact.—*V. Lessi* (Rome).

2818. Dworkin, S., Katzman, J., Hutchison, G. A., & McCabe, J. R. *Hearing acuity of animals as measured by conditioning methods.* *J. exp. Psychol.*, 1940, 26, 281-298.—Dogs and cats were trained to respond to pure tones by means of the motor-alimentary conditioning method. Ultimately thresholds were determined for 8 or 9 different frequencies between 100 cycles and 16,000 cycles, inclusive. Minimum audible fields were compared with those of a group of young human adult subjects. The sensitivity curves for both dogs and cats were almost identical. As compared to man, there were two main differences. In the animals, the most sensitive point was between 5000 and 8000 cycles, as against 200 to 3000 cycles in man. Secondly, the animals' hearing was more acute at frequencies above 5000. Unquestionably the upper frequency limit of hearing is higher in animals than in man.—*H. W. Karn* (Pittsburgh).

2819. English, B. C., Shmukler, B. C., & Cowan, A. *Evaluation of three methods commonly used in examination of eyes of school children.* *Arch. Ophthal.*, Chicago, 1939, 22, 1068-1073.—Of 485 third-grade children tested with the Betts telebinocular method and the N.E.A.M.A. method and checked during routine medical inspection, 301 failed in one or more of the preliminaries. 91 of these were checked by an ophthalmologist, whose findings indi-

cated that 55.6% were needlessly referred when tested by the Betts method, 34.2% when picked up in medical inspection, and 18.6% when tested with the N.E.A.M.A. method; while of those wrongly passed by one or more methods, 58.3% were passed by Betts, 32% by medical inspection, and 14.5% by N.E.A.M.A. The high error in the Betts method is attributed to failure to detect myopias. The N.E.A.M.A. method showed higher reliability than either of the other two. The N.E.A.M.A. method is identified by the following reference: *Conserving the Sight of School Children: Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association with the Cooperation of the National Society for the Prevention of Blindness*, Publication 6, Washington, D.C., National Education Association, 1929.—*M. R. Stoll* (Ohio State).

2820. Haig, C. *Dark adaptation measurements with natural and constant pupillary apertures.* *Amer. J. Physiol.*, 1939, 126, 518.—Abstract.

2821. Hardy, G. *Deafness and retinitis pigmentosa.* *Amer. J. Ophth.*, 1940, 23, 315-317.—Audiograms demonstrating loss of hearing in three cases of retinitis pigmentosa are presented. The associated deafness in this disease is mentioned in textbooks, but audiograms have not been published heretofore.—*D. J. Shaad* (Institute of Ophthalmology, New York City).

2822. Hardy, J. D., Wolff, H. G., & Goodell, H. *Studies on pain sensation. 1. Measurement of pain threshold with thermal radiation.* *Amer. J. Physiol.*, 1939, 126, 523-524.—Abstract.

2823. Heinsius, E. *Goethes Farbenlehre in ihrer Bedeutung für die Sinnesphysiologie.* (The significance of Goethe's color theory for sensory physiology.) *Med. Welt*, 1940, 14, 16-19.—Goethe's color theory is without value to present-day physics, since it is concerned with color sensation and disregards the stimulus. Physiologically his theory of subjective color sensations is of lasting significance.—*P. L. Krieger* (Leipzig).

2824. Hernandez, J. E. *The perception of yellow light through red and green binocular stimulations as determined by the conditioned galvanic response.* *J. exp. Psychol.*, 1940, 26, 337-344.—Using electric shock as the adequate stimulus, subjects were conditioned to give a galvanic response to yellow, shown singly or in combination with other colors. After this CR had been established and the galvanic response to all other colors had been extinguished, red and green were exposed separately to corresponding areas of the retina of each eye. Every subject gave the conditioned galvanic response. To substantiate the results, two additional subjects were used. One subject was conditioned to red and green presented so that each eye was stimulated by only one color, and afterwards he gave the CR to yellow, a reversal of the previous process. The other subject was conditioned to blue, and afterwards he did not give the galvanic response to red and green.—*H. W. Karn* (Pittsburgh).

2825. Holmes, J. H., & Gregerson, M. I. A study of the character and the mechanism of the thirst induced by the intravenous injection of hypertonic salt solution. *Amer. J. Physiol.*, 1939, 126, 537-538.—Abstract.

2826. Kobayashi, T. [On the perception of rotating figures.] *Jap. J. Psychol.*, 1939, 14, 261-270.—9 kinds of figures were presented at rates from 0.3 to 5 revolutions a minute and phenomenal differences at different rates were investigated. Retrogressive phenomena were especially taken into consideration. The stimuli used were projected with a magic lantern, and the distance from the subject was 123 cm. Observations were made both with and without a fixation point, which was put either at the center of the figure, 4 cm. under the center, or on the circumference.—R. Kuroda (Keijo).

2827. Lewis, D. Support for the exploring method of measuring aural harmonics. *Psychol. Rev.*, 1940, 47, 169-183.—Contemporary theorists agree that subjective harmonics and combination tones have physical representation in terms of actual vibrations in the cochlea which are products of distortion in the ear and are called aural harmonics. The only acceptable method for measuring their magnitude and phase, for normal human ears, is the "exploring tone method." This has been criticized recently by Trimmer and Firestone. The present article is an evaluation of their criticisms in the light of experimental data secured in the Iowa laboratory. It is concluded that the method is not universally applicable to studies of aural harmonics, but is a valuable experimental technique capable of yielding reliable information on the amount and kind of distortion in the human ear.—A. G. Bills (Cincinnati).

2828. Lewey, A., & Leshin, N. Functional examination of hearing. *Arch. Otolaryng.*, Chicago, 1940, 31, 344-366.—A review of the recent available literature on this topic.—W. J. Brogden (Wisconsin).

2829. Luckiesh, M., & Moss, F. K. Functional adaptation to near-vision. *J. exp. Psychol.*, 1940, 26, 352-356.—Experimental evidence is presented which shows that, in a state of rest assumed to be as complete as possible during consciousness, parallel rays of light from a distant object are focused at a point anterior to the retina of the typical emmetropic subject. The fact that the emmetropic subject usually achieves maximal or near-maximal visual acuity at distance under normal seeing conditions is attributed to the exercise of negative relative accommodation which is induced by sharply defined patterns of brightness contrast within the visual field.—H. W. Karn (Pittsburgh).

2830. Lüscher, E. Experimentelle Trommelfellbelastungen und Luftleitungaudiogramme mit allgemeinen Betrachtungen zur normalen und pathologischen Physiologie des Schalleitungsapparates. (Experimental tympanic modifications and air conduction audiograms, with general observations on the normal and pathological physiology of the sound conducting apparatus.) *Arch. Ohr., Nas., u.*

KehlkHeilk., 1939, 149, 372-401.—Against the old view of the functional effect of disturbances of sound conduction, these experiments relate such disturbances to a hearing loss chiefly for high frequencies with lowering of the upper tonal limit. Experimental disturbances may, however, also produce a hearing loss at the lower end of the scale. The amount of loss through modification of the tensor is significantly greater than for that of the manubrium, and 2 g. of mercury produce complete closure of the meatus. The tensor is especially important for higher and the conducting apparatus for medium frequencies.—P. L. Krieger (Leipzig).

2831. Lythgoe, R. J. The mechanism of dark adaptation: a critical résumé. *Brit. J. Ophthal.*, 1940, 24, 21-43.—The author concludes, from a study of the course of dark adaptation and of the nature of the curves relating visual function to illumination, that the sharp division into photopic and scotopic components does not correspond to a sharp division into cone and rod function. The cones can function at a lower illumination than is usually stated and they are probably in action for part of the curve conventionally marked scotopic. Similarly, certain phenomena suggest that the rods may play some part in photopic vision, although a nervous change is probably also active in the early stages of dark adaptation. Some of the possible causes of the more serious difficulties in the quantitative interpretation of the phenomena of scotopic vision in terms of visual purple are examined.—R. J. Beitel, Jr. (American Optical Company).

2832. Macht, D. I. Comparison of effects of cobra venom and opiates on vision. *Amer. J. Physiol.*, 1939, 126, 573-574.—Abstract.

2833. Macht, D. I., & Macht, M. B. Comparative studies of cobra venom and opium alkaloids on audition. *Amer. J. Physiol.*, 1939, 126, 574.—Abstract.

2834. Maison, G. L. Studies on the genesis of ischemic pain—the influence of potassium and lactate ions. *Amer. J. Physiol.*, 1939, 126, 577-578.—Abstract.

2835. Marzi, A. Senso statico e senso cinetico. Senso muscolare. (The static sense, the kinetic, and the muscular.) In Various, *Un secolo di progresso scientifico italiano, 1839-1939*. Rome: S.I.P.S., 1939. Vol. IV. Pp. 271-275.—The present-day conception of the unity of physico-psychological life has encouraged recent studies on the static, kinetic, and muscular senses, which have been carried out in great detail. From results of experiments in this field aeronautic medicine has been greatly improved and the knowledge of psychophysiology has been advanced. The principal experimenters have been Gemelli, who has emphasized the psychological aspects of the problems in this field and who has found construction phenomena in our perception of bodily position; G. A. Crocco, who has studied endurance phenomena; Kiesow, who worked on muscular sensitivity; Ponzo and Banissoni, who have emphasized work on weight determinations;

and Gatti, who experimented on alteration in the muscular sense as a result of fatigue.—*G. Fiorito* (Rome).

2836. Neill, R. M. On the existence of two types of chromatic behavior in teleost fishes. *J. exp. Biol.*, 1940, 17, 74-95.—*C. K. Trueblood* (Harvard).

2837. Okamoto, S. [An experimental study on color discrimination in a crow.] *Jap. J. Psychol.*, 1939, 14, 279-296.—A crow about 8 months old could discriminate red from green regardless of their brightness, but chiefly on the basis of the difference of color tone. At about one year of age it could differentiate red, yellow, green, blue, and violet from gray, not so much with regard to their mutual brightness as to their color tone; discrimination between red and yellow was easy, between blue and violet a little difficult, and between violet (as well as blue of lower brightness and poor saturation) and gray most difficult.—*R. Kuroda* (Keijo).

2838. Pepinsky, A. A physico-neurological concept of the relation between frequency and perceived intensity under a condition of constant amplitude. *J. Musicol.*, 1940, 1, No. 3, 8-10.—Explanations, both physical and neurological, are offered for the fact that ascending melodic passages are regarded as showing crescendo effects and descending passages decrescendo. "Inasmuch as the mean density of the medium and the velocity of propagation of a sound-wave in the medium are constants depending only on the normal physical state of the medium, then, if the amplitude of the sound-wave is held constant as a necessary condition of the argument, the intensity varies only as the square of the frequency of the sound-wave." "Increase of frequency results in the more frequent excitation of a single fiber or the excitement of a greater number of fibers. Indeed, the dependency of intensity upon frequency would even seem to indicate that fibers of a higher threshold value may be excited."—*P. R. Farnsworth* (Stanford).

2839. Picoli, H. R., R6, B. V., & Reca, A. [Malingering in ophthalmology.] *Arch. Oftal. B. Aires*, 1939, 14, 1 ff.—An exhaustive study of simulation as encountered by the practicing ophthalmologist is presented by the authors. Since most cases of this nature arise from compensation claims following industrial accidents, the subject is reviewed from this angle. After some general observations on malingering and the conditions which are most likely to be simulated, the writers consider in detail various traumatic lesions of the eye according to the anatomic part which may be affected. They discuss fully the methods of detecting and unmasking the malingerer, and also the problems of ocular hysteria.—(Courtesy *Amer. J. Ophthal.*).

2840. Poser, E. Vitamin B₁ re visual perception. *Ill. med. J.*, 1939, 75, 280 ff.

2841. Pötzl, O. Über Interferenzen zwischen linkshirniger und rechtshirniger Tätigkeit. (Interference of left and right cerebral activity.) *Wien. med. Wschr.*, 1940, 90, 6-9.—Cases of alternating

hemispheric deafness and induced tactual agnosia are discussed.—*P. L. Krieger* (Leipzig).

2842. Salzl, E. M., & Bordley, J. E. Localization of cochlear potentials. *Amer. J. Physiol.*, 1939, 126, 648-649.—Abstract.

2843. Sampson, R. Investigations into the binocular vision of a series of children with reading disability. (Appendix to MacMeeken, M., *Ocular dominance in relation to developmental aphasia*, Univ. London Press, 1939.)—An examination of 36 cases disclosed no outstanding defect of the binocular vision sufficiently common to suggest even a contributory causal relationship to reading disability. Of these cases the left eye was dominant in 15 cases (4 squints), the right eye in 6 cases (one squint), and in 15 cases no definite dominance existed. There seems to be some discrepancy here between Sampson's and MacMeeken's results, for the latter stated that "every one of these disability children was found to be left-eyed."—(Courtesy *Brit. J. Ophthal.*).

2844. Schnehage, H. J. Versuche über taktil Scheinbewegung bei Variation phänomenaler Bedingungen. (Studies of apparent tactual movement under varying phenomenal conditions.) *Arch. ges. Psychol.*, 1939, 104, 175-228.—14 normal and 8 blind subjects took part in the experiments, which were based on nearly simultaneous stimulation of two places on the skin. The places were different parts of the body, such as the two thumbs, hands, etc. Locality of stimulation, visibility, and rate of stimulation were among the variables. The principal method involved rhythmical alternating stimulation. Except for less extensive introspection, the blind subjects behaved as did the others. It was virtually impossible for any subject to abstract the sensations from his fixed impression of one stimulus following a preconceived path, regardless of the physical actualities.—*H. D. Spoerl* (American International College).

2845. Stefanini, A. Nuova ipotesi sulla percezione dei suoni. (A new hypothesis on the perception of sound.) *Arch. radioter. biofis.*, 1938, 5, Suppl., 253-261.—The author describes and criticizes the "volley theory" and gives a new interpretation of the process of transformation of mechanical stimuli into electrical nerve currents by the intervention of an electromotor contact force.—*R. Ricci* (Rome).

2846. Steggerda, F. R. The relation of dry mouth to thirst in the human. *Amer. J. Physiol.*, 1939, 126, 635.—Abstract.

2847. Tanturri, V. Orecchio ed orientazione professionale. (The ear and vocational guidance.) *Med. corporat.*, 1939, No. 10.—The author describes the main rules governing examinations for normal hearing as found in different occupations, and then classifies the different trades according to the degrees of hypacusia possible.—*V. Lessi* (Rome).

2848. Townsend, G. A vibration sense in a swarming annelid. *Biol. Bull. Woods Hole*, 1939, 77, 313.—Abstract.

2849. Travers, T. a'B. The origin of abnormal retinal correspondence. *Brit. J. Ophthal.*, 1940, 24, 58-64.—It is suggested that the first step in the development of abnormal correspondence is macular suppression. Macular suppression in one eye (or part of the binocular field) alters the power of discriminating direction in the deviated component of the binocular field. This allows the abnormal perception of direction to develop.—*R. J. Beitel, Jr.* (American Optical Company).

2850. Tuzuki, A. [On nearness.] *Jap. J. Psychol.*, 1939, 14, 271-278.—The author intended to clarify whether nearness is phenomenally determined or depends upon retinal images. The results derived from the observation of disappearance of after-images convinced him that it does not necessarily come from a one-sided source; particularly, no difference was frequently found between phenomenal and retinal-image nearness. He was not given any clue through his experimentation, but suggests that nearness may be functionally determined so far as it is phenomenal.—*R. Kuroda* (Keijo).

2851. Verhoeff, F. H. Improved kinetic test for binocular stereopsis. *Amer. J. Ophthal.*, 1940, 23, 320-321.—An illustration of a model of a useful stereoscopic test is given, with a brief description of the apparent movement obtained in stereopsis using disparate representations of a ball in a box.—*D. J. Shaad* (Institute of Ophthalmology, New York City).

2852. Voigt, H. Erörterung einer Geschwindigkeitsluschung. (Discussion of an illusion of rapidity.) *Arch. ges. Psychol.*, 1939, 104, 380-394.—The motion of an endless row of dots passing behind a small opening appears slower as the opening is lengthened. The length of a variable opening was regulated by the experimenter; the subject altered the speed of a motor to produce subjective equality of motion with the fixed stimulus used for comparison. The mathematical function of the amount of illusion was found to be cubical. The illusion itself depends upon a total perception in which distance and time are integrated.—*H. D. Spoerl* (American International College).

2853. Wald, G., & Steven, D. An experiment in human vitamin A-deficiency. *Amer. J. Physiol.*, 1939, 126, 648.—Abstract.

2854. Walzl, E. M. Effect of chemicals on cochlear potentials. *Amer. J. Physiol.*, 1939, 126, 649-650.—Abstract.

2855. Wolff, H. G., Hardy, J. D., & Goodell, H. Studies in pain sensation. II. The quantitative analysis of the action of analgesics. *Amer. J. Physiol.*, 1939, 126, 656-657.—Abstract.

2856. Wright, W. D. The response of the eye to light in relation to the measurement of subjective brightness and contrast. *Brit. J. Ophthal.*, 1940, 24, 1-21.—The object of this paper has been to summarize the information available about those processes which govern the magnitude of the visual response, to indicate how they come into play under normal conditions of seeing, and to put forward

suggestions regarding suitable methods for measuring subjective brightness and contrast. For the sake of brevity, much of the data is given in note form.—*R. J. Beitel, Jr.* (American Optical Company).

2857. Yanagisawa, N. [An experimental study on a modified Müller-Lyer figure. I.] *Jap. J. Psychol.*, 1939, 14, 321-326.—When the distance between both ends of the horizontal line and the vertices of the angles is gradually increased, a reverse illusion effect can be observed in the Müller-Lyer figure. At a certain distance the horizontal line in the arrow-head figure is more overvalued than in the feather-head one, and the degree of distance seemed to be generally in a definite relation with the whole size of the figure.—*R. Kuroda* (Keijo).

[See also abstracts 2723, 2735, 2736, 2739, 2755, 2756, 2757, 2759, 2772, 2783, 2801, 2907, 2919, 2977, 2983, 2998, 3034, 3035, 3043, 3060, 3185, 3251, 3254, 3291.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

2858. Anderson, L. D. A longitudinal study of the effects of nursery school training on successive intelligence test ratings. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 3-10.—No substantiation is found for "the hypothesis that nursery school training increases the IQ and that the amount of increase is dependent upon the duration of such experience." Children in the experimental and control groups were matched according to IQ, socio-economic status, sex, and education of mid-parent.—*P. S. de Q. Cabot* (Simmons).

2859. Artelle, G. E. Significance of the inquiry into the nature and constancy of the IQ. *Educ. Meth.*, 1939, 19, 99-105.—(*Educ. Abstr.* V: 267).

2860. Bayroff, A. G. Air blasts as substitutes for electric shock in discrimination learning of white rats. *J. comp. Psychol.*, 1940, 29, 109-118.—Two groups of 32 animals each were trained in a discrimination box containing a dark and a light alley. One group received a blast of air and the other an electric shock upon entering the dark alley. Within the training period of 10 trials a day for 3 days, there were an equal number of entrances into the lighted alley for each group. Repeated entrances into the dark alley, however, were significantly greater for the shock than for the air-blast group.—*N. L. Munn* (Vanderbilt).

2861. Beier, D. C. Conditioned cardiovascular responses and suggestions for the treatment of cardiac neuroses. *J. exp. Psychol.*, 1940, 26, 311-321.—Evidence is presented which shows that the cardiovascular response can be conditioned to a buzzer, using exercise as the unconditioned stimulus. The conditioned heart-rate responses assumed various patterns typical of individual subjects. The patterns did not, on the whole, resemble the original unconditioned response to the buzzer before adaptation. The CR's showed progressive reinforcement

through training—i.e., they became more intense and enduring. The type of procedure used gave no clear evidence of the occurrence of a conditioned respiratory response. In view of the similarity between the CR's obtained and the cardiac neuroses, it is suggested that some of the CR techniques might have therapeutic uses in the treatment of functional disturbances of the heart.—*H. W. Karn* (Pittsburgh).

2862. *Blair, G. M. The validity of the Noll test of scientific thinking.* *J. educ. Psychol.*, 1940, 31, 53-59.—Results based on item analysis of Noll test performances of 16 scientists suggest that the validity of this test is questionable.—*R. M. Bellows* (Maryland).

2863. *Brown, G. A. Suggestions on the study of mental energy.* *J. educ. Res.*, 1940, 33, 531-533.—A theoretical discussion of the development of thinking ability and of the value of thinking.—*S. W. Fernberger* (Pennsylvania).

2864. *Brownell, W. A. Theoretical aspects of learning and transfer of training.* *Rev. educ. Res.*, 1939, 9, 255-273.—This is a review of the literature from January 1936 to January 1939 presented under the following headings: theoretical aspects of learning: definitions of learning, learning theory or learning theories? Laws of learning, conditioning, organization in learning, physiological correlates of learning, educational applications—discussion and experimentation, interpretation of research; transfer of training: practical surveys and theoretical discussions, laboratory studies of transfer, transfer in school subjects, interpretation of present status of research. The bibliography includes 155 titles.—*M. Keller* (Yale).

2865. *Buswell, G. T. Types of learning and general conditions affecting learning.* *Rev. educ. Res.*, 1939, 9, 274-284.—The literature for the period from January 1936 to January 1939 is reviewed under the following headings: reviews of studies of learning, learning to solve problems, the relation of practice to learning, whole-part learning, other conditions affecting learning, retention and recall, studies in retroactive inhibition and interference, studies dealing with curves of learning, miscellaneous studies of learning. 85 titles are included in the bibliography.—*M. Keller* (Yale).

2866. *Buytendijk, F. J. J. De schaduwen van het kennen.* (Shadows of cognition.) *Tijdschr. Phil.*, 1939, 1, 5-28.—The author attempts to answer the question: To what extent do the expressive movements, purposive behavior, and play activities of animals show relations between subject and object similar to those present in human cognitive processes? The animal knows the world only through its own subjective experience and not as an objective reality, hence lacks the experience of the unknown, which is a prerequisite for cognition. The selection of appropriate expressive movements depends upon the situation, and the animal experiences each situation through its responses (ontologic cognition). Purposive behavior shows teleological direction and

modification in accordance with the demands of the situation, constituting not intelligent cognition but a behavioral form of the cognitive process which is a shadow of thinking. In its play activities the animal displays a preliminary form of cognition by inviting the participation of an object in its behavior. When man discovers the objective world as such rather than as environment, cognition becomes reality instead of a shadow.—*H. Beaumont* (Kentucky).

2867. *Carmichael, L. The physiological correlates of intelligence.* *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 93-155.—A review of certain problems bearing on the relationship between intelligence and bodily functions. The author discusses such topics as the bodily "seat of intelligence," specific brain mechanisms, learning ability and intelligence, clinical evidence on intelligence and the brain, the contributions of the study of the mentally deficient, brain weight and intelligence, the relation of the electrical phenomena of the brain to behavior, and the relationship between intelligence and the internal environment of the brain. Among the general conclusions with educational implications are the following: (1) judgments concerning the comparative intellectual status of an individual cannot be based exclusively upon direct anatomical, histological, physiological or biochemical studies; (2) the richest possible environment should be provided to encourage the maximal development of each brain; (3) educators would do well to promote a scientific understanding of eugenics.—*P. S. de Q. Cabot* (Simmons).

2868. *Carmichael, L., & others. Personal reactions of the Yearbook Committee.* (*Nat. Soc. Stud. Educ.*) *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 445-471.—Carmichael considers the main contribution of the Yearbook to be the elaborate discussion on techniques for differentiating intrinsic biological differences from socially determined ones. He doubts the environmental possibilities of modifying the fundamental structure of the individual. F. N. Freeman believes the confused opinions are due to two facts: (1) most interpreters of the scientific evidence are looking for proof rather than for the most probable explanation, (2) each set of thinkers lays the burden of proof on those who hold the opposite view. According to Goodenough, while education can help one to realize basic potentialities, it has not yet been demonstrated that these can be materially advanced. L. S. Hollingworth refers to the provocative value of the views represented and to the recording of long-time follow-up studies. The predictive value of intelligence-test results is more reliable after the age of 7 or 8. H. E. Jones predicts that future studies will involve more rigorously controlled experimentation, greater attention to the dynamics of mental growth, and the use of measures of mental ability in terms of specific components. Stoddard comments on the semantic variations present in 8 selected studies. Terman feels that research since 1928 has been marked by many retrogressions in methodological procedure.

He criticizes adversely several aspects of the Iowa researches, is sympathetic with the procedures and interpretations of the work of the Minnesota studies, and offers two possible explanations of Wellman's reported discrepant data. Wellman offers explanations justifying the conclusions of the Iowa contributors.—*P. S. de Q. Cabot* (Simmons).

2869. Carter, H. D. Ten years of research on twins: contributions to the nature-nurture problem. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 235-255.—During the past 10 years research on twins has improved greatly because of increased attention to statistical techniques, with more adequate diagnostic and experimental methods. Description rather than "explanation" characterizes data on similarity of twins, while resemblances of monozygotic and dizygotic twins now include character and personality traits. Ascertaining general percentage contributions of nature and nurture seems futile. Cumulative evidence points to the importance of hereditary factors. A focal point of research is found in the study of identical twins reared apart, and although the complexities are granted the claims of the most enthusiastic environmentalist should be carefully scrutinized.—*P. S. de Q. Cabot* (Simmons).

2870. Conrad, H. S., & Jones, H. E. A second study of familial resemblance in intelligence: environmental and genetic implications of parent-child and sibling correlations in the total sample. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 97-141.—A continuation of a study reported in the 27th *Yearbook*. The present investigation is based on intelligence measurements of 997 cases in 269 rural family groups, including the previous 105 families. The Stanford-Binet and Army Alpha tests were used. For both Stanford-tested and Alpha-tested offspring the average of the mother-child correlations was essentially the same as that of the father-child correlations. The correlation between like-sexed siblings was no higher than that between opposite-sexed siblings. General sibling and parental correlations were exactly equal. No positive evidence was found to support the theories of environmental influence affecting changes in intelligence or the theory of blending inheritance.—*P. S. de Q. Cabot* (Simmons).

2871. DeBoer, J. J. Intelligence and democratic living. *Educ. Meth.*, 1939, 19, 93-98.—(*Educ. Abstr.* V: 269).

2872. Dun, F. T. Aktualgenetische Untersuchung des Auffassungsvorganges chinesischer Schriftzeichen. (Study of the process, while in progress, of comprehending Chinese characters.) *Arch. ges. Psychol.*, 1939, 104, 131-174.—Each of 11 Chinese words was presented with a projector enough times for the subjects to become sure of their ability to reproduce it; reproductions and introspective material were recorded. Ability to grasp parts of the figure depends on the total structure; the tendency is to reproduce the total impression; different characters induce different procedures. Many subjects changed in the course of the experiment from a totalistic to an analytical procedure. Roughly,

three methods were adopted, based on total impression, writing instrument, and salient part. These correspond to Sander's types in experiencing Gestalten. 40 subjects were used, and the 11 characters are given.—*H. D. Spoerl* (American International College).

2873. Finan, J. L., & Taylor, L. F. Quantitative studies in motivation. I. Strength of conditioning in rats under varying degrees of hunger. *J. comp. Psychol.*, 1940, 29, 119-134.—Four equated groups deprived of food for intervals, respectively, of 1, 12, 24, and 48 hours were conditioned, in the Skinner apparatus, to depress a bar for food. They were then fed. 48 and 78 hours later they were given extinction tests under conditions of 24-hour food deprivation. The measures of conditioning strength were (1) number of extinction responses and (2) total time of extinction. In terms of both criteria, conditioning strength rose from a low point 1 hour to a high point 12 hours after feeding. There was a fairly rapid decrease in strength between 12 and 24 hours after feeding. A smaller decrease occurred between the 24- and 48-hour intervals. On the basis of variability data it is suggested that "drive in excess of the optimal (12-hour privation interval) may impair acquisition through decreasing variability of response." Extensive bibliography.—*N. L. Munn* (Vanderbilt).

2874. Freeman, F. N. The meaning of intelligence. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 11-20.—Three concepts of intelligence should be distinguished: the "organic," which is the "potentiality of a given type of behavior inhering in the bodily constitution of the individual"; the "social," referring to those factors which are the outgrowth of social intercourse and organization roughly represented by "culture"; and the "psychological or behavioristic" concept, indicating the behavior defined by a given test. Behavior can be considered intelligent in terms of the analysis of behavior itself and the description of its functional relation to the environment. Intelligence is "the ability to learn acts or to perform new acts that are functionally useful." Reference is made to the views of Thomson and Thorndike, Kelley and Thurstone, Spearman and Holzinger in the field of factor analysis.—*P. S. de Q. Cabot* (Simmons).

2875. Gantt, W. H. Relation between conditioned and unconditioned reflex: the factor of state of the organism at the time of stimulation and of prolonged experimental repetitions. *Amer. J. Physiol.*, 1939, 126, 498.—Abstract.

2876. Goldman, M. M. Motor conditioning in the goat. *Amer. J. Physiol.*, 1939, 126, 504-505.—Abstract.

2877. Goodenough, F. L. Look to the evidence! A critique of recent experiments on raising the IQ. *Educ. Meth.*, 1939, 19, 73-79.—(*Educ. Abstr.* V: 271).

2878. Goodenough, F. L. New evidence on environmental influence on intelligence. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 307-365.—A critical survey of evidence collected on this problem since the

publication of the *Twenty-Seventh Yearbook* in 1928. An evaluation is made of studies grouped according to the effects of nursery-school training, late school training, and foster-home placement, with particular attention to the Iowa researches. It has been demonstrated that when children of school age are retested with identical revisions of the Binet scale under optimal conditions after intervals varying from 1 to 7 years only small fluctuations result. Recent investigations have shown that the chances of variation in intelligence are not equally distributed for all levels of intelligence, the brighter children showing greater variability than the duller. Attempts to determine the expected variability of test results with preschool children are complicated because of the difficulty of securing the child's cooperation, the differential content of tests for the preschool child and those for older children, and the smallness of the denominator in computing the IQ when CA is low. Hazards in the interpretation of IQ changes are given.—P. S. de Q. Cabot (Simmons).

2879. Goodenough, F. L. Some special problems of nature-nurture research. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 367-384.—A presentation of statistical and interpretative errors inherent in longitudinal studies of mental growth, with suggestions for their elimination in future researches. Included in these errors are those relating to (1) the progressive selective elimination of many of the original subjects, (2) unequal matching of original control and experimental groups, (3) systematic errors of measurement because of an examiner's or experimenter's pre-judgments of results, (4) the non-comparability of tests used at different age levels, (5) interpretation errors due to overlooking the principle of regression, especially when measurements of gain or loss are considered.—P. S. de Q. Cabot (Simmons).

2880. Graham, C. H., & Gagné, R. M. The acquisition, extinction, and spontaneous recovery of a conditioned operant response. *J. exp. Psychol.*, 1940, 26, 251-280.—The apparatus used in this study consists of a runway, at one end of which is a starting box and at the other end a food box. The time taken by the animal to leave the starting box before traversing the runway to food (the latent period) was used as the measure of response. The latent period for 21 rats was measured in 15 reinforced trials, with a constant interval of 75 sec. between trials. The curve of acquisition reveals a response which begins with a log latent period of 1.85 (71 sec.) and falls off with negative deceleration to a log value of 0.43 (2.8 sec.) at the 15th trial. Changes in latent period of response during extinction were recorded in 41 rats, the trials being spaced at a 75-sec. interval. The extinction curve, which shows the change in latent period during 5 unreinforced trials, begins at a log latent period of 0.40 (2.6 sec.) and rises with negative acceleration to a log value of 1.33 (21 sec.). Spontaneous recovery was tested in 20 rats, 5 at each of 4 recovery intervals of no stimulation. Recovery is rapid during the first 3 minutes, but after 6 minutes the rate decreases rapidly. Recovery after 10 minutes is still not com-

plete. A theoretical discussion considers changes in an internal condition of excitation which may account for a number of the processes involved in conditioning.—H. W. Karn (Pittsburgh).

2881. Grant, D. A., & Dittmer, D. G. An experimental investigation of Pavlov's cortical irradiation hypothesis. *J. exp. Psychol.*, 1940, 26, 299-310.—"Conditioned galvanic skin responses were formed to vibro-tactile stimuli in two groups of subjects. The generalization gradient of fifteen subjects for whom the tactile stimulators were placed at equal intervals along the back, from shoulder to waist, may have been slightly steeper than the corresponding gradient for sixteen subjects for whom the stimulators were placed at equal intervals along the dorsum of the hand, from the tip of the index finger to the wrist. Since on the basis of data on cortical representation a steeper gradient for the hand is predicted by Pavlov's cortical irradiation hypothesis, the data indicate that this hypothesis is invalid."—H. W. Karn (Pittsburgh).

2882. Guthrie, E. R. Association and the law of effect. *Psychol. Rev.*, 1940, 47, 127-148.—Common speech defines acts in terms of their results, not in terms of the particular stimulus-response processes by which the results are accomplished. Conditioning, which is the behavioristic equivalent of the principle of association by contiguity, on the contrary attempts to predict the movements themselves, not only the end results. It is the difficulty of extending explanations by association (conditioning) from mere S-R relationships to significant action that has caused current dissatisfaction with the principle. Many experimenters (Hilgard, Skinner, Razran, etc.) have suggested that there are two varieties of conditioning. Hilgard assumes "reward" and "reinforcement," Skinner distinguishes between "S" type and "R" type, Razran speaks of "qualitative" as a distinct type from "quantitative" conditioning. In each case it is clear that the former type deals with acts or results, the latter with particular movements. Other authors, notably Allport, recognizing that the conditioned response is adaptive and not blind, appeal to the concept of "insight," but this loosely describes the result without explaining the mechanism. The same is true of terms like "dynamic," "directive," "vector," etc. Associative learning can be shown to explain all adaptive behavior. Hull and Hunter are moving in this direction.—A. G. Bills (Cincinnati).

2883. Hatano, K. Binet-test no bunshō kioku kensa. (Memory for sentences in a modified Binet test.) *Kyōiku Shinri Kenkyū*, 1939, 14, 842-862.—Memory for sentences is discussed in connection with the characteristics of the Japanese language.—R. Kuroda (Keijo).

2884. Hilgard, E. R., & Marquis, D. G. Conditioning and learning. New York: Appleton-Century, 1940. Pp. xi + 429. \$2.75.—The first chapter presents a history of the conditioning experiments and of attitudes toward them. The second and third are considerations of experiments in which

reinforcement is given, respectively, always and only after the occurrence of a conditioned response. The fourth considers the principles on which the effect of reinforcement may be explained; the fifth is on the nature and principles of extinction; the next two take up respectively the strength of conditioning (particularly the appropriate measures of this) and gradients of reinforcement (temporal gradient, gradient of reward, and goal gradient). A chapter on generalization and discrimination introduces one on serial learning (including the maze), and this in turn leads to one on problem solving (stimulus and response equivalence, delayed reaction, Umweg, insight, habit-family hierarchy, etc.). There are then chapters on voluntary action in its relation to conditioning, personality (including experimental neurosis and psychotherapy), and the neurophysiological mechanism of conditioning. Each chapter is provided with detailed notes; at the end of the book are a glossary of 13 pages, a selected bibliography of 973 items, and a subject index.—*R. R. Willoughby* (Brown).

2885. Hollingworth, L. S. *The significance of deviates. I. Review of research.* *Yearb. nat. Soc. Stud. Educ.*, 1939, 39 (I), 43-66.—An appraisal of inferior and superior deviates, referring to the relationship between sex, ethnic stock, physique, personality development, socio-economic status, and the incidence of feeble-mindedness and of high degrees of intelligence. The concept of "genius" in relation to IQ has undergone a striking change during the last ten years. Predictions about works of genius are not possible from IQ ratings alone, although it is at or above 180 IQ performance that the material of genius is found.—*P. S. de Q. Cabot* (Simmons).

2886. Hollingworth, L. S. *Intelligence as an element in personality.* *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 271-275.—Individuals who deviate widely in a plus or minus direction from the mean of human intelligence tend to become personality "isolates" regardless of the nature and significance of other elements in the personality. Special personality problems of those who have superior intelligence include negativism, intolerance, and habits of chicanery, while the very superior are apt to be troubled with the problem of evil. The play of children who test about 170 IQ is typically solitary. The concept of optimal intelligence that is neither maximum nor minimum should be studied by social psychologists.—*P. S. de Q. Cabot* (Simmons).

2887. Hollingworth, L. S., & Witty, P. *Intelligence as related to race.* *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 257-269.—The senior author discusses the problem of comparing races, outlining the position of anthropology, the present status of the concept of race, and the concept of census groups. Witty reviews the research dealing with the American Negro, with particular reference to one recent study. Conclusions from this investigation prove the falsity of the belief in the "lack of educability and the general constitutional inferiority of

Negro children." "Superior Negro children resemble other groups of American children who are superior in test-intelligence." Suggested research topics in the field of race intelligence are listed.—*P. S. de Q. Cabot* (Simmons).

2888. Honzik, M. P. *Age changes in the relationship between certain environmental variables and children's intelligence.* *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 185-205.—250 children living in an urban community were given several mental tests between the ages of 21 months and 8 years. Environmental data consisted of a socio-economic index, the mother's and father's education, combined mid-parent education, and the average of a number of independent ratings of the mother's intelligence. Results: (1) by 3½ years statistically significant relationships were established between children's test performances and mother's intelligence, parents' education, and socio-economic rating; (2) the relationship between environmental variables and children's test scores increased up to the last test given, at 8 years; (3) of all the environmental variables the ratings of the mother's intelligence showed the highest correlation with children's scores; (4) there was no systematic tendency toward a differential relationship between the mental scores of the children and the education of mothers or of fathers. The results did not offer any clue to the nature of the obtained relationships.—*P. S. de Q. Cabot* (Simmons).

2889. Hunter, W. S. *A kinesthetically controlled maze habit in the rat.* *Science*, 1940, 91, 267-269.—The author used a block-type elevated maze containing 8 culs-de-sac. The order of correct turns was simple alternation, *lrlrlrlr*. 5 blinded rats were given one trial daily. As controls, (1) the whole maze was rotated 45° clockwise each day, (2) between trials all units of the maze were interchanged in one of 15 predetermined orders, leaving only the *lrlrlrlr* constant. All animals learned to a criterion of 3 perfect trials in succession in from 9 to 16 trials. The author gives an explanation of the acquisition of this habit in terms of kinesthetic stimuli, and indicates the direction in which further experimentation should be made.—*F. A. Mote, Jr.* (Brown).

2890. Johannes, T. *Der Einfluss der Gestalt-bindung auf das Behalten. 2. Der Formenwandel von Einzelfiguren beim Einprägungsvorgang.* (The influence of Gestalt cohesion upon recall. 2. Form changes of single figures in impression.) *Arch. ges. Psychol.*, 1939, 104, 74-130.—Two series, each of 3 composite abstract figures containing about 5 elements each, were used as tachistoscopically presented learning material. Each composite figure in one series was a scattering of its single figures; in the other each had a definite arrangement. Recall was tested at intervals by requiring the subjects to reproduce the figures by drawing. The advantage for memory was conclusively with the Gestalt series. In spite of the fact that the scattered figures had to be presented more frequently, there was no noticeable effect from this repetition. The

study was conceived as chiefly qualitative, and introspective protocols were recorded. These reveal a persistent tendency to organize the material, and to remember only that which is organized.—*H. D. Spoerl* (American International College).

2891. Kellogg, W. N., Scott, V. B., Davis, R. C., & Wolf, I. S. Is movement necessary for learning? An experimental test of the motor theory of conditioning. *J. comp. Psychol.*, 1940, 29, 43-73.—Can the right hind limb of dogs be conditioned in a buzz-shock situation while (1) completely but only temporarily paralyzed due to pinching off of motor nerve roots, or (2) mechanically restrained from responding to the shock? 6 dogs were paralyzed, 6 restrained, and 5 normally conditioned. Two to four months after original conditioning, each animal was given 20 buzz-alone and 200 reconditioning stimulations. 2 operated dogs showed flexion conditioning to the buzz, although flexion had never occurred during original conditioning. 4 of the restrained animals were also conditioned. All operated and restrained animals showed restricted flexions in the reconditioning trials. Although paralyzed during original conditioning, the limb was passively moved by use of shoulder and other muscles. After recovery from the paralysis, it was withdrawn directly. The results "cannot be interpreted to show that learning is possible without movement . . . a great deal of activity is present during flexion conditioning and . . . elimination of special muscle-groups may result in the development of responses in other muscle-groups which are equivalent in their end result to the normal reactions of the original muscles."—*N. L. Munn* (Vanderbilt).

2892. Knott, J. R. Comments upon some electroencephalographic correlates of intelligence. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 133-135.—An evaluation of the work of Kreezer and Lindsley. The apparent disparity of the findings of these two investigators appears to be due to the essential difference of the populations studied. Three possible factors preventing the discovery of any correlation between the E. E. G. and normal intelligence are suggested by the writer.—*P. S. de Q. Cabot* (Simmons).

2893. Kreezer, G. The relation of intelligence level and the electroencephalogram. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 130-133.—Three types of mental deficiency based on performances with the Stanford-Binet test by subjects above 16 years were studied. The first group consisted of 50 subjects of the Mongolian type, the second of 46 subjects of the nondifferentiated familial type of mental deficiency, and the third of 13 subjects with phenylpyruvic amentia. Results suggest that, while there is evidence of a significant correlation between the E. E. G. and mental age level, the use of the electroencephalogram as an objective substitute for intelligence tests is unwarranted.—*P. S. de Q. Cabot* (Simmons).

2894. Kuznets, G. M., & McNemar, O. Sex differences in intelligence test scores. *Yearb. nat.*

Soc. Stud. Educ., 1940, 39 (I), 211-220.—Negative conclusions result from a survey of acceptable studies in this field.—*P. S. de Q. Cabot* (Simmons).

2895. Lewin, K. Intelligence and motivation. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 297-305.—Theoretical possibilities of how intelligence might be influenced by motivation are presented. The author reports an experimental investigation of the effect of frustration on regression with children whose mental ages are between 2 and 6 years. "There seems to exist a close relation between intelligence and the degree of differentiation of the person" since one would expect the "momentary" mental age to depend upon the motivational situation.—*P. S. de Q. Cabot* (Simmons).

2896. Loevinger, J. Intelligence as related to socio-economic factors. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 159-210.—A correlation of approximately .4 indicates the degree of relationship between the intellectual status of a father's occupation and the intelligence of a child from 3 years through 18, beyond which it is difficult to get random samples. "From birth until about 18 months the relation between developmental measures and socio-economic measures is slightly negative or zero." These findings hold approximately for American, English, and Russian school children. There is a definite positive relationship between intelligence and father's occupational level among superior Negro children. An unsatisfactorily loose usage of terms characterizes the majority of studies in this field, and usually no attempt is made to separate "socio-economic status" from associated variables.—*P. S. de Q. Cabot* (Simmons).

2897. Lorge, I. Intelligence and personality as revealed in questionnaires and inventories. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 275-281.—A review of types of rating scales and inventories and a general consideration of correlations between intelligence and measures of personality. "Whenever the paper-and-pencil test measures some performance or some judgments of value related to personality some significant correlation with intelligence may be expected."—*P. S. de Q. Cabot* (Simmons).

2898. Lund, F. H. Intelligence and emotionality. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 282-285.—The interdependence of intelligence and emotionality is particularly demonstrable from a study of certain cases of psychopathology. The distinction between the central nervous system and A. N. S. is one of convenience and does not imply either anatomical or functional independence. A study reporting correlations of .74 and .66 between intelligence and metabolic rate in grade-school pupils is cited. Emotional states can be considered as conditions of facilitation and inhibition. "The mentally impoverished individual is apt to become emotionally impoverished."—*P. S. de Q. Cabot* (Simmons).

2899. Macht, D. I., & Macht, M. B. Effect of cobra venom on mental efficiency tests. *Amer. J. Physiol.*, 1939, 126, 574-575.—Abstract.

2900. McCullough, C. M. Relationship between intelligence and gains in reading ability. *J. educ. Psychol.*, 1939, 30, 688-692.—Results suggest that on the high-school and college levels measured intelligence is not as important in the improvement of reading as other factors such as interests and home and school background, and that the influence of intelligence varies greatly from one student to another.—R. M. Bellows (Maryland).

2901. Munn, N. L. Learning experiments with larval frogs. A preliminary report. *J. comp. Psychol.*, 1940, 29, 97-108.—When placed in single-unit Y and T mazes having black versus white alleys, *Hyla* tadpoles went to the white alleys without training. Electric shocks for such entrances partially reversed the response, so that black alleys were chosen predominantly. Complete reversal of the phototropic response was not obtained in 270 trials. Learning curves were of the usual negatively accelerated variety. Bullfrog tadpoles greatly reduced the amount of retracing involved in threading mazes with three and four blind alleys. One animal, after 100 trials, reached an accuracy of 90% in 50 trials for the first turn in the maze path. Other turns were not mastered. The performance of both *Hyla* and bullfrog tadpoles was extremely variable from day to day.—N. L. Munn (Vanderbilt).

2902. Nakano, S. Ronriteki shikō no hattatsuteki kenkyū. (Developmental studies on logical thinking.) *Kyōiku Shinri Kenkyū*, 1939, 14, 798-812.—The syllogistic thinking of girls from 9 to 14 years of age is investigated from the standpoint of problem solution. Logical thinking appears at the age of 7 or 8 and completes its function after the age of 11 or 12.—R. Kuroda (Keijo).

2903. Pritchard, M. C., Horan, K. M., & Hollingsworth, L. S. The course of mental development in slow learners under an 'experience curriculum.' *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 245-254.—Data on the intellectual development of 111 dull-normal children subjected to a specific educational program for two years failed to supply evidence to support the findings of Wellman. The original intellectual pattern of the children was not significantly altered by a carefully planned and controlled school curriculum.—P. S. de Q. Cabot (Simmons).

2904. Reymert, M. L., & Hinton, R. T. The effect of a change to a relatively superior environment upon the IQ's of one hundred children. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 255-268.—An analysis was made of the case histories of 100 children who for 4 years were given the advantages of the superior Mooseheart environment described by the authors. The age range at time of entrance was from 3 to 14 years and the IQ range 70 to 130. The general conclusion was that if any advantageous effect on IQ's is to be obtained by transferring children from an inferior to a superior environment the change should be made before the age of 6.—P. S. de Q. Cabot (Simmons).

2905. Rusk, R. R. The intelligence of Scottish children. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 269-273.—A brief report of comparisons between the 1932 and the 1935-37 national surveys of intelligence conducted by the Scottish Council for Research in Education. In neither survey were there significant differences in the intelligence of boys and girls, nor were there marked differences in the distribution of intelligence in rural and urban areas. Although children born in August tended to be brighter than those born in May or February, no statistically significant differences were found.—P. S. de Q. Cabot (Simmons).

2906. Sagara, M. [Assimilative processes as a factor of inhibition in memory. Further experiments.] *Jap. J. Psychol.*, 1939, 14, 367-377.—The same memory materials as were used in the author's previous study were employed. Each material was presented only once, for five minutes, and its mechanical memorizing was required. Only its quality was announced, and the order of presentation of the median material in the whole series was not told. After the presentation of the whole series instructions were given to avoid recalling the content of the materials during the rest of the five minutes. A reproduction was required in three minutes. It was found that the more the intermediate memorizing matter, the stronger the inhibition appears in the median as well as in the whole series of materials when they are recalled; the inhibitory effect is weaker when the median materials are put temporally before the proper ones than when the former is put after the latter.—R. Kuroda (Keijo).

2907. Shirai, T. Kankel haaku ni kansuru hitotsu no jikken. (An experiment on apprehension of relation.) *Kyōiku Shinri Kenkyū*, 1939, 14, 882-904.—The subjects, including kindergarten children, primary school children, and college students, were trained to select the larger or brighter one of two objects, and then transpositional and critical experiments were made. The objects used were the area of a square, the width of a surface, and shades of gray. The results indicate that the criterion of choice in the 6-year-old children is relative and absolute in the adult women; the choice of 7-year-old children is intermediate.—R. Kuroda (Keijo).

2908. Shock, N. W. The effect of benzedrine and of thyroid and pituitary substances on mental life. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 139-141.—An appraisal is made of various claims that intelligence is appreciably altered by administration of benzedrine and glandular therapy. The interpretation that, following dosages of benzedrine, increases in intelligence-test scores are due to non-intellectual factors such as release from anxiety and mild depression, is open to question. Correlations ranging from .20 to .73 have been discovered between metabolic rate and mental test scores, but while extreme deviations in thyroid activity may influence intellectual development a significantly close association has yet to be established. Rigorously controlled experiments with pituitary medication affecting intelligence and behavior of animals have produced negative results.—P. S. de Q. Cabot (Simmons).

2909. Shuttleworth, F. K. The cumulative influence on intelligence of socio-economic differentials operating on the same children over a period of ten years. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 275-280.—An analysis of mental-test and occupational data collected by the Harvard Growth Study shows there is no evidence that over a long period of years socio-economic differences have a cumulative effect in creating progressively larger IQ differences.—P. S. de Q. Cabot (Simmons).

2910. Sinoi, T. *Mondai kalketsu katei*. (The process of problem solution.) *Kyōiku Shinri Kenkyū*, 1939, 14, 63-80; 273-299.—Problem-solving activities involved in conundrums, arithmetic, and geometry are treated.—R. Kuroda (Keijo).

2911. Skeels, H. M. Some Iowa studies of the mental growth of children in relation to differentials of the environment: a summary. *Yearb. nat. soc. Stud. Educ.*, 1940, 39 (II), 281-308.—A survey of several studies dealing with the modifiability of intelligence in children and conducted at the Iowa Child Welfare Research Station during the past 6 years. Trends in mental growth are considered in relation to (1) length of residence in underprivileged homes, (2) changes from an underprivileged home environment to a superior adoptive one, (3) placement of children from lower socio-economic levels in superior adoptive homes in early infancy, (4) transferral of children of low intelligence from a non-stimulating institutional environment to a markedly superior one at the preschool ages.—P. S. de Q. Cabot (Simmons).

2912. Stoddard, G. Introduction to 39th Yearbook of National Society for the Study of Education. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 3-7.—A general statement concerning the organization and purpose of the Yearbook, which is on the nature and nurture of the IQ, and comparing the 1928 issue with the current one, which has been written by the "democratic" method. No attempt has been made at a consensus within the Committee responsible for its production, although the members have written critical summaries.—P. S. de Q. Cabot (Simmons).

2913. Stoddard, G. D., & Wellman, B. L. Environment and the IQ. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 405-442.—A review of studies concerning the effects of environment upon intelligence quotients, grouped according to (1) home influences such as socio-economic status, education and IQ of parents, foster-home placements, (2) schooling, including preschool attendance and types of schools attended, (3) special training programs, (4) general home and school conditions, (5) institutional residence. Major issues in the nature-nurture controversy are recapitulated, and revolve about the series of studies responsible for the presentation of the "Iowa-Binet theory of intelligence."—P. S. de Q. Cabot (Simmons).

2914. Sutherland, G. F. Salivary conditioned reflexes in swine. *Amer. J. Physiol.*, 1939, 126, 640-641.—Abstract.

2915. Terman, L. M., & Oden, M. The significance of deviates. II. Status of the California gifted group at the end of sixteen years. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 67-74.—A report of a follow-up study of the group of gifted children studied by the author in 1922. In the 1938 survey 96% of the subjects located returned questionnaires. The median age of the 1922 elementary-school subjects is now 26 and that of the 1922 high-school subjects 32. About 3% of the subjects have died. Nearly 90% of the boys and 85% of the girls have gone to college, where the large majority made superior records. Up to 1938 46% of the boys and 51% of the girls had married. 73% of the boys and 65% of the girls said that inclusion within the gifted group had had no effect upon them. A considerable proportion of the subjects have not lived up to their ability. Generally creative intellectual productivity has been confined to the males. A more thorough follow-up will be made during 1939-40.—P. S. de Q. Cabot (Simmons).

2916. Terman, L. M., & Oden, M. The significance of deviates. III. Correlates of adult achievement in the California gifted group. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 74-89.—167 boys in the gifted group, belonging roughly to the upper quarter in terms of success, were compared with 146 who constituted approximately the lower quarter. Three judges made subjective judgments as to the degree of success. Six illustrative cases are given. Comparisons were made on over 200 items. Generally speaking, "excess in IQ above 140 or 150 adds little to one's achievement in the early adult years," and "above the IQ level of 140 adult success is largely determined by such factors as social adjustment, emotional stability, and drive to accomplish."—P. S. de Q. Cabot (Simmons).

2917. Tryon, R. C. Genetic differences in maze-learning ability in rats. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 111-119.—A report of a series of experimental investigations over an 11-year period to determine the relative effects of nature and nurture on certain psychological factors. Brightness appears to be correlated with physical superiority. The role of the environment is apparently negligible in altering the persistence of brightness and dullness throughout the lives of the animals. Evidence affording insight into the psychological differences between the bright and dull groups is given, along with a prospectus of future lines of research.—P. S. de Q. Cabot (Simmons).

2918. Wellman, B. L. The meaning of environment. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 21-40.—Subdivisions of the total environment are made, and particular types of environment such as socio-economic status, school and home, geographical location, and institutional residence are studied in relation to intelligence. The measurement of environment and heredity are considered, with a discussion of the question: how does the environment produce changes in intelligence?—P. S. de Q. Cabot (Simmons).

2919. Wherry, R. A test by factorial analysis of Honzik's exteroceptive data. *J. comp. Psychol.*, 1940, 29, 75-95.—Honzik's table of intercorrelations is analyzed by the Thurstone centroid method, and five factors, namely, vision, audition, olfaction, forward-going tendency, and anticipation were obtained. A critical evaluation of Honzik's conclusions concerning exteroceptive cues is made in terms of the factor analysis. With reference to sensory cues in post-learning tests, it is claimed that sudden loss of vision destroys two thirds of the effectiveness of auditory cues, that the visual factor is four fifths extra-maze and one fifth intra-maze in character, and that olfaction is two thirds intra-maze and one third extra-maze in character.—N. L. Munn (Vanderbilt).

2920. Wickens, D. D. Conditioned response data and the holistic point of view. *Psychol. Rev.*, 1940, 47, 155-169.—There is no essential incompatibility between the holistic doctrine of Gestalt psychology, i.e. that the behavior of parts is determined by the nature of the whole of which they are part, and the data derived from conditioned response experiments. If the holistic principle is translated to read "The response of any segment of the body is determined not only by local conditions within or immediately surrounding that segment, but by the conditions of the entire organism," and if the conditioned response is recognized to be only somewhat like the response produced by the unconditioned stimulus, rather than identical with it, then many conditioning experiments are capable of Gestalt interpretation. Quantitative differences in the conditioned response are caused by effect of verbal suggestions on the subject's attitude, by strength of the organism's motive, by other conditioned responses, momentary organic states, drug effects, etc. Not only will one member of the body act as a substitute for another when that is inhibited, but the conditioned member itself will reverse its mode of reacting, under appropriate perceptual conditions.—A. G. Bills (Cincinnati).

2921. Witty, P. Toward a reconstruction of the concept of intelligence. *Educ. Meth.*, 1939, 19, 64-72.—(*Educ. Abstr.* V: 275).

2922. Wollstein, A. [The action of the cephalotropic amines on intelligence scores. III.] *Acta med. scand.*, 1939, 100, 203-207.—No definite objective effects on the intelligence scores of the experimental subjects could be detected.—(Courtesy *J. ment. Sci.*).

2923. Yamane, K. [An experimental study on the conditions of learning. IV. Transfer of learning in motor skill.] *Jap. J. Psychol.*, 1939, 14, 378-388.—65 high school students were divided into five groups, of which two were controls. The author first studied the effect of ball-throwing with two hands or hitting targets with a pin with one hand (both kept up for eight days) upon the exactness of ball-throwing with one hand, and then went on to determine the effect of ball-throwing with two hands upon the hitting movements with the target. Generally

speaking, both the ball-throwing with two hands and the hitting movements made some progress; the throwing action with one hand, therefore, received an inhibitory influence; though the control group made 45.9% progress, the groups doing ball-throwing with two hands or with one hand showed respectively only 10.3 and 6.7% progress. Exactness of hitting movements was retarded by ball-throwing with two hands; and the test group showed only 8.3% progress and the control group 17.3%. The relations of the progress rate of the intermediate work and that of the second standard one were $.275 \pm .160$ (between one-hand and two-hand throwing), $-.487 \pm .132$ (between one-hand throwing and hitting targets) and $-.234 \pm .150$ (between hitting targets and two-hand ball-throwing). These results tend to deny the existence of a general motor function. Stability of hitting as a standard task received no effect from the intermediate work.—R. Kuroda (Keijo).

[See also abstracts 2739, 2818, 2824, 2960, 2965, 2976, 2983, 2994, 3013, 3039, 3080, 3084, 3102, 3105, 3180, 3191, 3202, 3207, 3217, 3220, 3231, 3236, 3238, 3245, 3256, 3261, 3273, 3281, 3292, 3293, 3294.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

2924. Abramson, D. I., Zazeela, H., & Oppenheimer, B. S. Effect of smoking upon the vascular beds in skin and muscle, as determined by plethysmographic studies in man. *Amer. J. Physiol.*, 1939, 126, 417.—Abstract.

2925. Aggazzotti, A. *Fisiologia dell'uomo a grandi altezze*. (The physiology of man in high altitudes.) In Various. *Un secolo di progresso scientifico italiano, 1839-1939*. Rome: S.I.P.S., 1939. Vol. IV. Pp. 329-336.—Studies on the physiology of man in high altitudes have been made chiefly by Italians. Mosso, in his book entitled *The physiology of man in the Alps*, gives the results from his experiments, the principal one being his discovery that mountain sickness is due more to a lack of carbon dioxide in the blood than to a lack of oxygen. Later Galeotti and the author confirmed this theory. Other phenomena are also linked with this lack of carbon dioxide, such as hyperglobulina and increase of adrenalin, cholesterol, calcium, and magnesium in the blood.—G. Fiorito (Rome).

2926. Anderson, O. D. The spontaneous neuromuscular activity of various pure breeds of dog and of interbreed hybrids of the first and second generation. *Amer. J. Physiol.*, 1939, 126, 422-423.—Abstract.

2927. Benedek, T., & Rubenstein, B. B. The correlations between ovarian activity and psychodynamic processes. II. The menstrual phase. *Psychosom. Med.*, 1939, 1, 461-485.—An analysis of the psychoanalytic records and daily vaginal smears taken during the premenstrual-menstrual phases of 125 cycles of 15 patients confirms previous findings of

the close correlation between physiological and psychological processes. "The presence of estrone corresponds to the presence of active heterosexual libido. The presence of progesterone corresponds to a passive, receptive instinctual tendency." Four cyclical phases with corresponding hormone and psychological states are examined. In the early premenstrual, estrone is minimal and progesterone dominant, with incipient recurrence of heterosexual tendency; in the premenstrual phase progesterone diminishes with estrone variable but low, and a generally quiescent psychological state; in the late premenstrual, progesterone is suddenly extinguished, accompanied by eliminative tendencies and emotional tension or depression disproportionate to hormone production; in the last (menstrual) phase there is low hormone activity with emotional relaxation.—*P. S. de Q. Cabot* (Simmons).

2928. Bergami, G. Il lavoro muscolare. (Muscular work.) In Various, *Un secolo di progresso scientifico italiano, 1839-1939*. Rome: S.I.P.S., 1939. Vol. IV. Pp. 287-289.—The history of the study of muscular work starts with Mosso, the author of a paper entitled "The laws of fatigue studied in the muscles of man," and the inventor of ergography and ponometry. He also designed the first of the individual work curves, and discovered that the blood of fatigued animals is poisonous. Patrizi invented the volumetric glove and many other kinds of apparatus for the study of variation in respiration and circulation during physical and psychological work. Through his study of the relationship between psychological activity and work, Patrizi laid the foundations for psychotechnics.—*G. Fiorito* (Rome).

2929. Bieber, P. Grasping and sucking. *J. nerv. ment. Dis.*, 1940, 91, 31-36.—Grasping and sucking are interrelated in the infant, facilitating and enhancing each other, with grasping accessory first for support and later for bringing the object to the mouth. Grasping and sucking appear in the same relationships in adults with some types of nervous system pathology, the more nearly simulating the infantile behavior with the degree of disorganization of integration.—*R. C. Moore* (Boston Psychopathic Hospital).

2930. Black, H. Coalescent twins. *J. Hered.*, 1940, 31, 16-18.—An autopsy report on conjoined year-old twins who died of pneumonia while under observation at the All-Union Institute of Medicine in Moscow reinforces the conclusion that the origin of sleep is not connected with the blood stream. The twins had two heads, four arms, one torso, two legs, and two separate spinal columns and nervous systems. They slept separately and responded individually to pain stimuli and to the sound of their own names. There are two photographs of the pair, one showing one twin crying and the other sleeping.—*G. C. Schwesinger* (American Museum of Natural History).

2931. Bradbury, J. T. Masculinization of the female rat by gonadotropic extracts. *Amer. J. Physiol.*, 1939, 126, 441-442.—Abstract.

2932. Brandes, G. Buschi. Vom Orang-Säugling zum Backenwüllster. (Buschi. From an orang infant to a gluttonous bully.) Leipzig: Quelle & Meyer, 1939. Pp. 155. RM. 4.80.—Presents the physical and psychical development of an orang born on a steamer.—*P. L. Krieger* (Leipzig).

2933. Brodgen, E., & Hellebrandt, F. A. Postural changes in respiration. *Amer. J. Physiol.*, 1939, 126, 445-446.—Abstract.

2934. Burge, E. L. Demonstration of electrical polarity in the fish and in the human. *Amer. J. Physiol.*, 1939, 126, 450-451.—Abstract.

2935. Burge, E. L., & Burge, W. E. Effect of exercise and rest on electrical polarity. *Amer. J. Physiol.*, 1939, 126, 450.—Abstract.

2936. Burge, W. E. A comparison of the effect of exercise and rest on the threshold of the knee-jerk and electrical potential. *Amer. J. Physiol.*, 1939, 126, 452.—Abstract.

2937. Burrill, M. W., & Greene, R. R. Experimental intersexuality: correlation between treatment and degree of masculinization of genetic female rats. *Amer. J. Physiol.*, 1939, 126, 452-453.—Abstract.

2938. Burton, A. C., & Taylor, R. M. Rhythmic fluctuations of sympathetic tone and their modification by temperature and by psychic influences. *Amer. J. Physiol.*, 1939, 126, 453-454.—Abstract.

2939. Buys, E. Nota complementare per la ricerca della soglia nistagmica col metodo delle reazioni post-rotatoria. (A complementary note on the study of the nystagmic threshold by the method of post-rotatory reactions.) *Valsalva*, 1939, No. 12.—In a determination of semi-circular sensitivity by the method of post-rotatory nystagmic threshold two factors were found which affect it: the duration of the rotation and the intensity of the angular acceleration. However, since these factors have relative values which are inversely proportional, it was found unimportant to keep one of them uniform while varying the other, and vice versa.—*V. Lessi* (Rome).

2940. Capone, G. Il riflesso spino-emotivo. (The spino-emotive reflex.) *Zacchia*, 1939, 3, ser. 2, 47-50.—The author describes a particular reflex which he identified several years ago; it has medullary and cerebral mesencephalic components and is manifested during periods of cortico-affective disequilibrium.—*R. Ricci* (Rome).

2941. Ceni, C. La psiche veduta attraverso la biologia dell'istinto materno. (The psyche observed in the light of the biology of the maternal instinct.) *Neopsichiatria*, 1939, 5, 1-22.—This report was given at a conference held at the University of Szeged, Oct. 23, 1939. The author discussed the several components of the maternal instinct: the psycho-organic factor, including the specific reflexogenic centers and the congenital and acquired psychological energies; and the humoral factor. He also gave a brief survey of the development of the maternal instinct in the zoological scale up to man.—*R. Ricci* (Rome).

2942. Courtice, F. C., Douglas, C. G., & Priestley, J. G. Adrenaline and muscular exercise. *Proc. roy. Soc.*, 1939, B127, 288-297.—It is found, in studying the effects of a single subcutaneous injection of adrenaline in two subjects during light and moderate muscular exercise, that hyperglycemia caused by a given dose is less during exercise than during rest. The concentration of excess lactic acid in the blood is much the same in both cases, and disappears about as rapidly during exercise as during rest. Changes in respiratory quotient seem to depend on the accumulation and subsequent disappearance of excess lactic acid, affording no evidence of enhanced oxidation of carbohydrate, in spite of the long maintained rise of blood-sugar concentration. 3 references.—C. K. Trueblood (Harvard).

2943. Courtis, B. *Vias del nistagmus.* (The pathways in nystagmus.) Buenos Aires: Aniceto Lopez, 1938. Pp. 150 + 93 microphotographs.—This monograph, the thesis "de profesorado" of the author, reviews the previous work on nystagmus in a historical manner from John Hunter in 1786 to Ohm in 1912-1917 and Arganaraz in 1924. The author then gives a classification under three headings: "reflex, vestibular, and central nystagmus"; and abstracts anatomical and experimental work on the nervous pathways in nystagmus. In Courtis's opinion nystagmus is a reflex phenomenon. There is a bibliography of 82 items and the monograph is profusely illustrated.—(Courtesy *Brit. J. Ophthalm.*).

2944. Davidenkov, S. Inherited inability to eat sugar. *J. Hered.*, 1940, 31, 5-7.—Individuals affected with "aglycophagia"—a congenital incapacity to eat any kind of sweet food—were found to occur in two series of siblings, first-cousin families, including two out of seven in one family and four out of five in the other. Neither the parents of the affected nor their own offspring were affected. Under experimental conditions, when given 55 cc. cane sugar one subject reacted by flushing, feverishness, suffocation symptoms, arrhythmic pulse, and certain objective changes in motor chronaxie. This syndrome is not regarded as a kind of allergy, but seems to be more closely related to familial myoplegia; but it does not wholly resemble any clinical condition so far known.—G. C. Schwesinger (American Museum of Natural History).

2945. Desai, M. M. Surprise: a historical and experimental study. *Brit. J. Psychol. Monogr. Suppl.*, 1939, No. 22. Pp. 124.—In the first 30 pages of this monograph the problems involved in the study of surprise are historically reviewed. Experiments dealing with both introspective and behavioral data are presented later. Among the conclusions stated are the following: (1) surprise tends to arrest the motor activity in which the subject is engaged at the moment of surprise; (2) under surprise, the emotional value of a stimulus is enhanced; (3) surprise tends to occur when an expectation is frustrated, or when the stimulus conflicts with previous knowledge, belief, or experience; and (4) surprise, in and of itself, is not a cause of laughter.

A bibliography of 232 titles is appended.—D. G. Ryans (Cooperative Test Service).

2946. Elftman, H. The work done by muscles in walking. *Amer. J. Physiol.*, 1939, 126, 484.—Abstract.

2947. Franke, F. E. Spinal reflexes in nicotin poisoning. *Amer. J. Physiol.*, 1939, 126, 492-493.—Abstract.

2948. Greene, R. R., & Burrill, M. W. Experimental intersexuality: modifications of embryonic sexual development obtained by giving large amounts of estrogens to the pregnant rat. *Amer. J. Physiol.*, 1939, 126, 510-511.—Abstract.

2949. Harris, A. S. Cardio-inhibitory and vaso-depressor reflexes from the nose and throat. *Amer. J. Physiol.*, 1939, 126, 525-526.—Abstract.

2950. Hasama, B. *Potentialschwankungen am Leuchtorgan eines Glühwurms.* (Fluctuations in potential in the lighting organ of a glow-worm.) *Protoplasma*, 1939, 33, 103-109.—An action current from the lighting organ of the glow-worm is produced by the bioluminescence of the lighting cells. The resulting curve, called an electroluminogram, shows rhythmical fluctuations following almost exactly the production of light. This bioluminescence is related to the oxidation of the lighting cells and is directed by the central nervous system. The light of the glow-worm, which is not due to heat, is able to displace retinal pigment in the frog.—P. L. Krieger. (Leipzig).

2951. Ingvar, S. *Om sömn; dess läkedom och samhällsmedicinska betydelse.* En bok för sömlösa och gott sovande. (Sleep, its therapeutic and socio-medical implications. A book for insomniacs and those who sleep well.) Lund: C. W. K. Gleerups Förlag, 1938. Pp. 54. Kr. 1,50.—The treatment is in four chapters. The first deals with the phenomena and mechanism of sleep. Wherever applicable, knowledge obtained from cases of epidemic encephalitis has been drawn upon. What, in the final analysis, causes man to go to sleep is still a riddle, but the hypothesis is set forth that this may eventually be solved by observations during treatment of insulin shock. The second chapter deals with the therapeutic effect of sleep, and the third chapter with insomnia. These include topics useful in the clinic, such as the amount of sleep an individual needs. The fourth chapter deals with sleep and social hygiene, in which the writer discusses, for instance, the value of the 1- to 1½-hour pause for sleep which is compulsory in a number of industries in Russia and Germany.—N. J. Van Steenberg (Iowa).

2952. Jacobson, E. Variations in blood pressure with skeletal muscle tension (action-potentials) in man. III. The influence of brief voluntary contractions. *Amer. J. Physiol.*, 1939, 126, 546-547.—Abstract.

2953. Johnson, W., & Duke, D. Revised Iowa hand usage dexterity quotients of six-year-olds. *J. educ. Psychol.*, 1940, 31, 45-52.—Norms for the revised Iowa hand usage test scored in terms of the

dexterity quotient (defined as the percentage of achievement in any test of handedness which is to be credited to the right hand) are reported for 50 6-year-old children. Further evidence is given for the conclusion that hand usage is not bimodally distributed. Hand usage tends to involve the same hand in proportion to the amount of teaching or supervising for the use of that hand. This tendency may have implications for the problem of learned vs. hereditary basis of hand usage.—R. M. Bellows (Maryland).

2954. Jung, R., & Mittelmaier, R. Zur objektiven Registrierung und Analyse verschiedener Nystagmusformen: vestibulärer, optokinetischer und spontaner Nystagmus in ihren Wechselbeziehungen. (The recording and analysis of various forms of nystagmus: the interrelations of vestibular, optokinetic, and spontaneous nystagmus.) *Arch. Ohr., Nas., u. KehlkHeilk.*, 1939, 146, 410-439.—P. L. Krieger (Leipzig).

2955. Keeler, C. E., & Trimble, H. C. Inheritance of position preference in coach dogs. *J. Hered.*, 1940, 31, 50-54.—Dalmatian dogs, trained to run beneath carriages, are observed to have individual differences in the particular position they prefer in following the horse; they are consistent in following their preference. Close to the horse's heels is rated as a "good" position; following in the rear of the carriage is rated "bad," with intermediate ratings between. The dogs who preferred the bad positions were sometimes man-shy, suggesting a relationship between poor coaching ability and natural timidity. Data obtained from various kinds of cross-breeding and inbreeding between "good" and "bad" dogs show a statistical preponderance in favor of this mental trait being passed on from parent to progeny.—G. C. Schwesinger (American Museum of Natural History).

2956. Larson, J. A., Canty, A., & Broom, C. La verdad acerca del indicador de mentiras. (The truth about the lie detector.) *Arch. chil. Criminol.*, 1937, 1, 57-65.—The authors dislike the term "lie detector," because of its implications. They are unenthusiastic about its use as evidence in court, but in the hands of experts it is very useful in preliminary examination of suspects.—H. E. Burt (Ohio State).

2957. Macht, D. I., & Macht, M. B. Effect of cobra venom and other analgesics on the tapping test. *Amer. J. Physiol.*, 1939, 126, 575.—Abstract.

2958. Macht, D. I., & Macht, M. B. Influence of cobra venom and morphine on muscle work. *Amer. J. Physiol.*, 1939, 126, 575.—Abstract.

2959. Mellanby, K. Low temperature and insect activity. *Proc. roy. Soc.*, 1939, B127, 473-487.—It is found for five species of insects, belonging to three different orders, that the temperature at which an insect is immobilized by cold ("chill-coma temperature") is considerably affected by the temperature at which the insect has been living. Individuals of the same species from warm conditions immobilize at higher temperatures than those from cool. Insects

cooled below the chill-coma temperature and then returned to warm conditions recover more slowly the further they have been cooled below the chill-coma point. Insects of the same species from warm conditions are more easily killed by exposure to conditions below zero than those from cool. The threshold temperature for spontaneous movement is usually several degrees higher than that at which movement is possible. Other effects are described and discussed. 19 references.—C. K. Trueblood (Harvard).

2960. Monge M., C. Perturbaciones psíquicas en la enfermedad de la altura. (Psychical disturbances in illness from altitude.) *Rev. Neuro-Psiquiat.*, 1939, 2, 536-545.—In serious cases of illness resulting from high altitudes, profound changes in personality and conduct and even loss of memory occur. Likewise rapid decline of attention and of aptitude for mental work have been noticed. As the illness progresses the patient becomes, in general, apathetic and indifferent. When the patient leaves the high altitude, all the symptoms disappear, and often he cannot remember anything of his former condition. The writer gives a number of actual cases, discussing the psychological and physical manifestations as the illness became worse.—J. E. Bader (Letchworth Village).

2961. Müilly, K. Training und Leistung. (Training and performance.) *Vjschr. naturf. Ges. Zürich*, 1939, 84, 145-196.—The author's training curve avoids the disadvantage of Mosso's use of a constant 8 kg. weight. Maximal individual performance is possible at the outset. The body as a whole is involved in protracted and momentary performance. The aggregate of the lifting heights is work in kg., deviating from Mosso. The training curve has fluctuations; it portrays the neuromotor type in work per second. Müilly distinguishes a euryosome and a leptosome type. The new training curve can present the athletic types individually as well as in general, dispensing with functional dependence. Its extent of range is individually determined; it establishes maximal performance directly, absolutely, and temporally.—P. L. Krieger (Leipzig).

2962. Norton, H. W. Note on Woods' paper on parental instinct. *J. Hered.*, 1940, 31, 29-32.—After mentioning certain statistical errors, arbitrary and subjective judgments, and other fallacious data in Woods' earlier papers (*J. Hered.*, 30, 237-244; 313-320) it is shown that there is no association between size of family, sex, birth order, and rank, and no tendency for the youngest child in the family to be a male; and that the observed sex ratio in the *Almanach* families is 107.6 : 100, exceeding the value 105 : 100, usually observed in the generality. All of this invalidates Woods' conclusion that the desire for male heirs is the cause of the large families observed among royalty.—G. C. Schwesinger (American Museum of Natural History).

2963. Parmenter, R. Direct current potentials associated with human ovulation. *Amer. J. Physiol.*, 1939, 126, 597.—Abstract.

2964. Philip, B. R. **Studies in high speed continuous work: V. Pain, blocking and tiredness.** *J. exp. Psychol.*, 1940, 26, 322-336.—This paper presents some subjective results obtained from earlier experiments on continuous tapping at high speed. Tabulated data under the following headings are listed: (1) frequency of reference to pain and its location; (2) frequency of blocking (dropping stylus, references to numbness, cramps, etc.); (3) frequency of feelings of tiredness (references to and objective indications of fatigue, such as sweating, sighing, etc.). Excerpts from the subjects' introspective reports supplement the tabular material.—H. W. Karn (Pittsburgh).

2965. Philp, H. L. **An experimental study of the frustration of will-acts and conation.** *Brit. J. Psychol. Monogr. Suppl.*, 1936, No. 21. Pp. xii + 103.—A set of 50 verbal puzzles was attempted by 10 subjects. Additional puzzles were also attempted by the same subjects and 3 others, so that in all 1000 individual experiments were performed. In two series of experiments, introspective reports were recorded throughout the entire interval required for solution, with special attention to the obstacles which the subjects encountered. In another series the subjects stopped of their own accord when frustrated, and described this experience. In a fourth series subjects reported on the frustration caused by a stop signal. This monograph is chiefly concerned with the analysis of the descriptive material. Concerning frustration, the author concludes: (1) frustration consists of two aspects, a confused experience of conative effort, and an increased emotional experience; (2) frustration does not imply that the "will to solve" is necessarily lessened; (3) the feeling-tone of frustration is relatively fixed; and (4) similar painful past experience tends to intensify the present displeasure which characterizes frustration.—R. M. Gagné (Brown).

2966. Pringle, J. W. S. **The reflex mechanism of the insect leg.** *J. exp. Biol.*, 1940, 17, 8-17.—Oscillographically recorded studies of motor discharges in the leg muscles of the cockroach (*Periplaneta americana* L.) are reported. Two main reflexes are described: (1) a depressor reflex, evoked by stimulation of the campaniform sensilla on the legs; (2) a levator response to touch on the upper side of the leg. There is direct antagonism in the excitation of depressor and levator muscles, and between similar muscles in the two legs of a body segment. Reflex effects are not transmitted from one segment of the animal to another. A suggestion is offered for the explanation of rhythmic movements. 15 references.—C. K. Trueblood (Harvard).

2967. Ranson, S. W. **The hypothalamus as a thermostat regulating body temperature.** *Psychosom. Med.*, 1939, 1, 486-495.—Experimental evidence from a study of body temperatures in cats is reviewed with the following general conclusion: the center at the base of the brain controlling body temperature comprises two parts: (1) a heat-sensitive region located in the pre-optic and supra-optic regions connected in the lateral hypothalamus with a

motor center for panting behind the hypothalamus and increasing rate of heat loss; (2) a region reducing heat loss and probably increasing heat production coextensive with the sympathetic center in the hypothalamus. It is an open question how far these conclusions apply to man, although autopsy studies and experiments on monkeys suggest that "the same part of the hypothalamus protects the body against chilling in carnivores and primates."—P. S. de Q. Cabot (Simmons).

2968. Rath, H. **Dynamometrische und ergographische Untersuchungen bei normalen Frauen.** (Dynamometric and ergographic investigations with normal women.) *Arch. ges. Psychol.*, 1939, 104, 48-73.—55 normal women ranging in age from 14 to 56 were the subjects in this attempt to obtain data comparable to those for men, ultimately in the interests of psychiatric diagnosis. Pulling strength was somewhat more uniform for the women, the average range being several kg. lower than for men. "Submaximal" loads were used where possible, but for mechanical reasons these were maximal for 78% of the subjects. The ergographic studies revealed two tendencies: some subjects produced the usual plateaus while others did not, the latter case indicating more sustained endurance. Pulse changes were very variable.—H. D. Spoerl (American International College).

2969. Roncato, A. **Le ghiandole a secrezione interna.** (Glands of internal secretion.) *In Various, Un secolo di progresso scientifico italiano, 1839-1939.* Rome: S.I.P.S., 1939. Vol. IV. Pp. 297-307.—A brief history is given of endocrinology, ranging from the Brown-Sequard experiments to the studies of De Dominicis, Bernard, and Frey on pancreatic secretions and the studies of Vassale, G. B. Colli, and Czerny on the functions of the parathyroids. Attention is also called to the studies of Vassale, Zafrogini, Houssay, and Lewis on hormonal production in the suprarenal glands, of Pierre Marie, Caselli, Vassale, and Sacchi on the relationship between the function of the hypophysis and body growth, and the studies of Pelizzi on the function of the pineal body. In conclusion the author discusses the studies of Pende on unity in the endocrine-sympathetic system and his constitutionalistic theory.—G. Fiorito (Rome).

2970. Rowinski, P. **Meccanica e regolazione nervosa della respirazione.** (The mechanism and nervous regulation of respiration.) *In Various, Un secolo di progresso scientifico italiano, 1839-1939.* Rome: S.I.P.S., 1939. Vol. IV. Pp. 321-327.—With respect to the mechanism of respiration, mention is made of studies on the function of the internal and external intercostal muscles and of studies on the relationship between respiration and blood circulation. Results are also listed which have been obtained from research on the relationship between respiration and blood circulation, on the smooth musculature of the lungs and the respiration pathways, on the localization and automatism of the respiratory centers, on the chemical control of

respiration, and on reflex phenomena.—*G. Fiorito* (Rome).

2971. *Seward, G. Studies on the reproductive activities of the guinea pig. II. The rôle of hunger in filial behavior.* *J. comp. Psychol.*, 1940, 29, 25-41.—Suckling animals were tested in the hurdle box, with the mother as an incentive, just after nursing and after predetermined deprivation periods. The average number of crossings in a 10-minute period increased and the average time per crossing decreased as a function of hunger. That this behavior required presence of the mother as an incentive was shown in control tests. Presence of the mother apparently offered a social incentive over and above that associated with satisfaction of hunger. It is believed that an innate thermo-regulation drive, as well as a social and a hunger drive, underlies the filial behavior pattern of the guinea pig.—*N. L. Munn* (Vanderbilt).

2972. *Seward, J. P., & Seward, G. H. Studies on the reproductive activities of the guinea pig: I. Factors in maternal behavior.* *J. comp. Psychol.*, 1940, 29, 1-24.—Maternal drive, defined as "the tendency of the mother guinea pig to cross a barrier to her young," was measured in terms of the time taken to reach the litter, which after contact was placed at the opposite end of a runway containing two hurdles. The chief findings were: great individual difference in strength and persistence of the drive; a decline in the strength of the drive as a function of time during the three post-partum weeks; and occurrence of a decline even when the animals were habituated to the apparatus, when they were habituated to the litter, when the age of the young was changed, and when the mothers were milked artificially. Hormonal action is believed to be of primary importance in accounting for these results. Extensive bibliography.—*N. L. Munn* (Vanderbilt).

2973. *Shirai, K. Über den Einfluss der Ermüdung auf die Leberfunktion für die Glykogenbildung aus der Milchsäure.* (The effect of fatigue on the function of the liver in making glycogen from lactic acid.) *Osaka med. J.*, 1939, 38, 1409-1414.—The author measured glycogen produced in the liver of both normal and fatigued rabbits. The results indicate that in a fatigued animal the production of glycogen from lactic acid falls off, but no correlation between the function of the liver and the degree of fatigue or the quantity of movement was observed in the present experiment.—*R. Kuroda* (Keijo).

2974. *Shulman, I., & Mulinos, M. G. The factors concerned in the vasoconstriction from tobacco smoking.* *Amer. J. Physiol.*, 1939, 126, 629-630.—Abstract.

2975. *Sichel, J. M., & Prosser, C. L. The excitatory process in the isolated skeletal muscle fibre preparation.* *Amer. J. Physiol.*, 1939, 126, 630-631.—Abstract.

2976. *Trow, W. C. Motivation, emotional responses, maturation, intelligence, and individual differences.* *Rev. educ. Res.*, 1939, 9, 285-294.—This is a review article covering the literature appearing

from January 1936 to January 1939. The material is organized under the following subtopics: motivation: theoretical approaches, drives and incentives, punishment; emotion: physiological approaches, fears, adjustments and treatment; maturation: growth, adolescence; intelligence: factor analysis of mental ability, the constancy of the IQ, special groups, intelligence and education; individual differences: nature and nurture, psychological and social differences, racial and linguistic differences. The bibliography comprises 140 titles.—*M. Keller* (Yale).

2977. *Worznak, J. J., & Gesell, R. The proprioceptive drive of the respiratory act.* *Amer. J. Physiol.*, 1939, 126, 658.—Abstract.

2978. *Young, W. C., & Brewster, R. The hormonal induction of homosexual behavior in the spayed female guinea pig.* *Psychosom. Med.*, 1939, 1, 449-460.—Homosexual or mounting activity in 206 spayed female guinea pigs was induced by injections of estrogens alone, estrogens and progesterone, androgens alone, and androgens, estrogens and progesterone. No single hormone or combination of hormones was as effective as estrogen followed by progesterone. It is suggested that estrogens acting synergistically are responsible for the heat and mounting activities. When the animals were given repeated series of injections there was a tendency for the mounting activity to be relatively constant despite variations. Similarities and differences between mounting activities and heat responses are noted. The authors suggest that the two aspects of sexual behavior are indicated by two effector systems both of which are stimulated by the synergistic action of estrogen and progesterone. Other problems awaiting investigation are listed.—*P. S. de Q. Cabot* (Simmons).

[See also abstracts 2706, 2718, 2742, 2746, 2752, 2754, 2755, 2762, 2771, 2774, 2778, 2781, 2782, 2784, 2791, 2795, 2805, 2806, 2824, 2861, 2867, 2869, 2873, 2895, 2898, 2908, 3003, 3028, 3169, 3178, 3186, 3267, 3275, 3279, 3284, 3295.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

2979. *Bonaventura, E. La psicoanalisi.* (Psychoanalysis.) Milan: A. Mondadori, 1938. Pp. 412.—*R. Ricci* (Rome).

2980. *Funk, A. Ricerche intorno al problema cardinale della psicoanalisi.* (Studies on the main problems of psychoanalysis.) *Riv. sper. Freniat.*, 1938, 62, 706-722.—The author, who opposes the organic theory and the psychologically dogmatic position of Freud, formulates a psychological theory which is positivistic with respect to the unconscious.—*R. Ricci* (Rome).

2981. *Garma, —. Essai de psychanalyse d'Arthur Rimbaud.* (Essay on the psychoanalysis of Arthur Rimbaud.) *Rev. franç. Psychanal.*, 1938, 10, 383-420.

2982. *Laforgue, R. Le facteur thérapeutique en psychanalyse.* (The therapeutic factor in psychoanalysis.) *Rev. franç. Psychanal.*, 1938, 10, 537 ff.

2983. Leuba, C. **Images as conditioned sensations.** *J. exp. Psychol.*, 1940, 26, 345-351.—Two stimuli, such as the ringing of a bell and a pin prick on the hand, were applied simultaneously to subjects while they were under deep hypnosis. Before being awakened the subjects were told that they would remember nothing that had happened during the hypnosis. A few minutes after being awakened they were subjected to a succession of stimuli, among which was one of the two stimuli originally applied (the bell); they were instructed to report at once if they experienced anything besides the usual direct effects of the stimuli. Almost without exception images (conditioned sensations) were immediately reported upon presentation of the conditioned stimulus. After ringing of the bell, for instance, the subjects reported itching and pain on the hand, although there was no recollection of being pricked there previously or of having ever heard the bell.—H. W. Karn (Pittsburgh).

2984. Pichon, E. **Evolution divergente de la genitalité et de la sexualité dans la civilisation occidentale.** (The divergent evolution of genitality and sexuality in western civilization.) *Rev. franç. Psychanal.*, 1938, 10, 461-470.

2985. Price, H. H. **Presidential address: haunting and the "psychic ether" hypothesis; with some preliminary reflections on the present condition and possible future of psychical research.** *Proc. Soc. Psych. Res., Lond.*, 1939, 45, 307-343.—The speaker points out that psychical research, in its present state, is in need of making use of all possibly relevant facts and hypotheses of related fields of study. Consistent with this position, he then develops a hypothesis of telepathy in terms of persisting and telepathically charged images.—J. G. Pratt (Duke).

2986. Sellers, C. W. **The narcissus complex.** Detroit: C. W. Sellers, 2314 W. Grand Blvd., 1939. Pp. 39. \$0.50.

[See also abstracts 2724, 2927, 3052, 3056, 3153.]

FUNCTIONAL DISORDERS

2987. Anderson, O. D. **Two cases of experimental neurosis in dogs of known genetic constitution.** *Amer. J. Physiol.*, 1939, 126, 421-422.—Abstract.

2988. Barahal, H. S. **Constitutional factors in male homosexuals.** *Psychiat. Quart.*, 1939, 13, 391-400.—From a study of various body measurements of 37 psychotic homosexual males, 305 other psychotic males, and 50 male hospital employees the author points out a tendency for the homosexuals to be characterized by comparatively longer extremities, narrow hips, feminine pubic hair distribution, and scanty facial hair. The pertinent literature is cited, and the inadequacy of present norms noted. It is concluded that the evidence does not point to homosexuality as an "organic" or "endocrinological" condition.—R. C. Moore (Boston Psychopathic Hospital).

2989. Bellsmith, E. B. **Some industrial placements of women patients paroled from a state hospital.** *Ment. Hyg., N. Y.*, 1940, 24, 82-91.—The problem of adequate parole supervision has been met by one large mental hospital by placing patients ready to be paroled in positions suitable for them in four general hospitals. This procedure is advantageous to the mental hospital because the patients are adequately supervised, because in-patients are encouraged and stimulated, and because financially the hospital is saved indefinite maintenance of such patients. From the viewpoint of the general hospital it is a more satisfactory method of securing employees than recourse to a public employment agency. Case histories are included.—P. Brand (New York City).

2990. Bostroem, A. **Über Querulanten.** (Paranoiacs.) *Klin. Wschr.*, 1940, 19, 47.—Paranoid psychopaths differ from medical patients with paranoid delusions. Common to both are the feeling of infringement of rights and attempts to secure their rights. But the motive force for the former is an hypomanic urge to activity or a settled liking for conflict or assertiveness, while that for the latter is the delusion. Paranoia is based on a system of goal-strivings. The closer it is to a disease, the more urgent and vital is the striving. The more it approaches a healthy medium, the more robust and direct the goal-setting appears.—P. L. Krieger (Leipzig).

2991. Breckinridge, S. P. **Statutory provision for the commitment of insane persons.** *Soc. Serv. Rev.*, 1939, 13, 221-245.—G. S. Speer (Child Guidance Service, Springfield, Ill.).

2992. Brend, W. A. **Traumatic mental disorders in courts of law.** London: W. Heinemann, 1939. Pp. 104. 7s. 6d.—A plea is made for better understanding of traumatic neuroses. Effects of the 1914-1918 war in producing neuroses are reviewed. The lack of relation between the extent of the neuroses and the severity of shock or injury initiating the symptoms is pointed out. The effect of fright before receiving the injury and the influence of suggestion in producing neurotic symptoms are discussed. Practical legal aspects of the Workmen's Compensation Act and the work of the medical referee are taken up.—D. G. Ryans (Cooperative Test Service).

2993. Brusa, P. **Possibilità ed organizzazione dell'azione preventiva neuropsichiatrica nella prima infanzia.** (The possibility and organization of preventive neuropsychiatric action in early childhood.) *Atti Lega Ital. Igiene Profil. ment.*, 1939.—After a brief discussion of the main etiology of nervous and psychic affections in children, the author calls attention to the need of an organization devoted to the study of the prophylaxis of infantile cerebropathies, particularly in the first three years of life.—V. Lezzi (Rome).

2994. Burstin, J. **Pensée affective et psychopathologie. III.** (Affective thought and psychopathology. III.) *Ann. méd.-psychol.*, 1939, 97, Part 2, 557-574.—During such diverse mental states

as dreams, fatigue, euphoria, mental confusion, manic excitement, and schizophrenia affective thought rather than rational thought comes to the surface and is expressed. In the functioning of thought the morbid element may be in the hierarchical arrangement or in a complete lack of synthesis. The lack of synthesis is illustrated in this section. Both these forms of thought are latent in normal individuals and become overt in all types of psychoses.—*M. B. Mitchell* (Mt. Pleasant Hospital, Iowa).

2995. Chatagnon, P., & Jouannais, S. *Influence des événements de guerre sur les psychopathies.* (The influence of the events of war on psychopathies.) *Ann. méd.-psychol.*, 1939, 97, Part 2, 610-617.—Among 82 female psychotic patients admitted to the Maison-Blanche in France during the three months from September 1 to December 1, only one blamed the war for her psychosis. She had a poor family history including alcoholism and suicide, was in the involutional period, and had lost her husband during the last World War only a few months after she was married. Four other cases could be considered as partially caused by the war. Three were melancholias and one an alcoholic mental confusion. The patients already hospitalized showed relatively little reaction to the war. They were temporarily upset by sirens announcing air raids, but showed little reaction to war news, even when received from relatives at the front. Three months was too short a period to observe much weaving of war material into delusional systems.—*M. B. Mitchell* (Mt. Pleasant Hospital, Iowa).

2996. Corsegno, M. E. *Sulla psicoterapia.* (On psychotherapy.) Genoa: La Poligrafica Ligure, 1938. Pp. 21.—Often psychotherapy is useful in mental cases, in that no possible harm to the patient is involved by this method.—*R. Ricci* (Rome).

2997. Daniels, G. E. *Present trends in the evaluation of psychic factors in diabetes mellitus.* *Psychosom. Med.*, 1939, 1, 527-551.—The results of a survey of the literature dealing with the evaluation of the psychic factor in diabetes mellitus during the last five years are reported. Special attention is paid to the experimental field. Earlier insulinogenic concepts have been gradually relinquished in favor of the influence of emotional factors. Experimental evidence emphasizes the implication and importance of the hypothalamus. Some evidence indicates the possibility of a diabetic anlage being passed on as a recessive Mendelian trait. Recent psychiatric contributions show considerable interest in the psychoanalytic approach. Emphasis is less upon the frequency of traumatic diabetes and more upon the presence of anxiety expressed on the autonomic level. A review of psychotherapy in diabetes is made with stress upon the importance of attending to personality factors in uncooperative cases.—*P. S. de Q. Cabot* (Simmons).

2998. David, J. E. *The sensory level in hygienic integration.* *Ment. Hyg.*, N. Y., 1940, 24, 107-111.—The psychotic patient may be reactivated on the sensory level more effectively than on the intellectual

level. On the sensory level the patient comes into direct contact with reality, and interposing difficulties do not disrupt the behavior processes so easily. There are many ways in which the low sensory level may contribute to wholesome basic behavior development.—*P. Brand* (New York City).

2999. Davidenkov, S. *Problems set by clinical neuropathology to be solved by genetics.* *J. Hered.*, 1940, 31, 55-60.—The problems listed include: that of duplex inheritance, of translocation, of penetrance of heterozygosity, of gene interrelation, of mildly affected relatives, and other perplexities. Some nervous affections behave both as recessives and as dominants, the two forms being barely distinguishable clinically, e.g. spastic paraplegia. In some families diseases are inherited as autosomal dominants, while in others the same diseases behave as sex-linked recessives, e.g. Charcot-Marie's amyotrophy. The environment can heighten the penetrability of genes possessing a low power of manifestation, as when alcoholism affects myopathy. The correlation between symptoms may depend on the hetero- or homozygous structure of the same gene, as may be the case in the relation between migraine and genuine epilepsy. Variations in the degree of dysplasias should be studied for their independence or related gene origins. Mild manifestations of dysplasias in relatives may be an indication of an inhibited form of the same gene which manifests itself in developed dysplasias, as when relatives of patients of Friedreich's ataxia show excavated feet or congenital weakness of tendon reflexes. There should be experimental study of the summation of pathological effects resulting from neurotropic genes.—*G. C. Schwesinger* (American Museum of Natural History).

3000. Desruelles, M., & Bersot, H. *L'assistance aux aliénés en Algérie depuis le xix^e siècle.* (Assistance to the psychotic in Algeria since the 19th century.) *Ann. méd.-psychol.*, 1939, 97, Part 2, 578-596.—When Algeria was controlled by the Arabs, there seems to have been some provision made for the humane care of the insane, but by the time of the French conquest it had deteriorated to chaining them in cells. For nearly a century the insane were allowed to run free, be secluded in their own homes, or be exiled to hospitals in France, after being held for transfer under poor conditions. The numbers sent to France were relatively small. They found it difficult to adjust to European food and customs. The death rate was much higher than for French people. Finally, after long political interference and after Tunis and Morocco had begun to care for their own psychotics, Algeria has also begun to care for its own mentally ill. One regular mental hospital has been opened, at Blida-Joinville, April 1938. There are also three smaller hospitals with clinics (referred to as open services) which correspond to American psychopathic hospitals, where many of the patients come voluntarily for short periods of treatment and diagnosis. The Europeans and natives are under separate services at Blida, which is built on a modern pavilion system. It also has a

pavilion for boys. Problem girls are treated at St. Elizabeth Hospital.—*M. B. Mitchell* (Mt. Pleasant Hospital, Iowa).

3001. *Doll, E. A. Psychological consequences of cerebral birth lesions.* *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 119-122.—A summary of conclusions concerning the psychological sequelae of cerebral birth lesions and a clarification of the meaning of this kind of lesion. Reference is made to the areas of impairment of the motor, intellectual, and sensory systems, and of personality and social behavior.—*P. S. de Q. Cabot* (Simmons).

3002. *Euzière, J., Fassio, E., & Lafon, R. Automatisme et hypertonie de nature psychomotrice.* (Automatism and hypertonia of a psychomotor nature.) *Ann. méd.-psychol.*, 1939, 97, Part 2, 575-577.—A 21-year-old male patient is described who has crises of varying lengths in which he becomes overexcited, then rigid. The resistance to passive movement is great and resembles voluntary resistance. No organic symptoms are obtainable, and the patient comes out spontaneously with amnesia for the crisis.—*M. B. Mitchell* (Mt. Pleasant Hospital, Iowa).

3003. *Felix, R. H. Some comments on the psychopathology of drug addiction.* *Ment. Hyg.*, N. Y., 1939, 23, 567-582.—Before one can treat drug addiction one must understand thoroughly its etiology, pathology, epidemiology, and symptomatology, as in other medical conditions. Addicts have been divided into groups on the basis of personality study. The same fundamental drive is present in all cases, namely, the desire to derive from life more pleasure and satisfaction. Kolb distinguishes between the positive and the negative pleasure. Satisfactory adjustment in security, sexual drive, or drive for power and achievement is not made when the patient begins to use drugs. The patient usually is either over-aggressive or over-timid, or he is emotionally unstable. Case histories are given.—*P. Brand* (New York City).

3004. *Felsani, G. La profilassi mentale nell'esercito.* (Mental hygiene in the army.) *Atti Lega Ital. Igiene Profil. ment.*, 1939.—An indispensable factor for military efficiency is complete psychological health. To achieve this, care must be used in the selection of men for army life, and then during military service prophylaxis must be supplied for the education and correction of neuro-labile and psycholabile subjects. The general principles covering such care and the results obtained in Italy are discussed.—*V. Lezzi* (Rome).

3005. *Giannuli, F. L'indirizzo fisiologico in psichiatria in un libro di "H. Baruk."* (The physiological trend of psychiatry, as indicated in a book by H. Baruk.) *Riv. Biol.*, 1939, 27, 97-123.—*R. Ricci* (Rome).

3006. *Gordon, R. G. The prevention of anxiety.* *Brit. med. J.*, 1940, Part I, 120-123.—*W. J. Brogden* (Wisconsin).

3007. *Guirdham, A. Treatment of mental disorders with male sex hormone.* *Brit. med. J.*, 1940, Part I, 10-12.—*W. J. Brogden* (Wisconsin).

3008. *Harrington, A. H. Music as a therapeutic aid in a hospital for mental diseases.* *Ment. Hyg.*, N. Y., 1939, 23, 601-609.—Music under wise direction has been recognized as of therapeutic value in treatment of mental diseases. Unison group singing is more effective than technical instruction of the heterogeneous patients found in hospitals. Instrumental music of a subdued type, without marked rhythm, when used during meals produces quiet and repose. Special training of a group of singing patients helps their powers of attention.—*P. Brand* (New York City).

3009. *Hattenberg, I. v. Die Erkrankungen des Nervensystems durch gewerbliche Vergiftungen. II Teil.* Kohlenoxyd, Kohlendioxyd, Nitrose-gase, Ammoniak, Natriumnitrit, Schwefelwasser-stoff, Schwefelkohlenstoff, Zyan und Zyanverbindungen, Benzin, Benzol und seine Homologe Xylo und Toluol, Nitrobenzol, Tetrachlorkohlenstoff, Tri-chloräthylen, Formaldehyd, Methylalkohol, Metal-dehyd, Lysol, Azeton, Pyridin, Nikotin, Brasilianische Werkhölzer. (The diseases of the nervous system from industrial poisoning. Part II. Carbon monoxide, carbon dioxide, nitrous gases, ammonia, sodium nitrite, hydrogen sulphide, carbon disulphide, cyanide and cyanide derivatives, benzine, benzol and its homologues xylol and toluol, nitrobenzol, carbon tetrachloride, ethyl trichloride, formaldehyde, methyl alcohol, metaldehyde, lysol, acetone, pyridin, nicotine, Brazilian timbers.) *Fortschr. Neurol. Psychiat.*, 1940, 12, 59-82.—*D. S. Oberlin* (Delaware State Hospital).

3010. *Hoctor, E. F. Mental hygiene in social work.* *Ment. Hlth Observ.*, 1940, No. 6-7, 11-19.—The role of the social worker in preventing mental disorder and in improving the care and treatment of the mentally ill is discussed.—*M. Keller* (Yale).

3011. *Kaplan, O. Life expectancy of low grade mental defectives.* *Psychol. Rec.*, 1940, 3, 295-306.—A study of the life duration of 424 imbeciles and 344 idiots showed that the average for the former was 26.6 years and that for the latter 19.0 years. The number of deaths due to nervous disease was negligible; the major cause of death at all ages was respiratory disease. Living under very similar conditions, female imbeciles outlived male imbeciles by 5.6 years. Heredity may be a factor in accounting for the longevity of mental defectives. If present trends continue the life expectancy of mental defectives will be substantially increased.—*P. S. de Q. Cabot* (Simmons).

3012. *Karlan, S. C. Symptoms and previous personality in prison psychoses.* *Psychiat. Quart.*, 1939, 13, 514-520.—50 cases of prison psychosis were studied after recovery with respect to the relation between previous personality and psychotic symptoms. Where possible the Humm-Wadsworth temperament scale was used. A definite relationship was found in 46 cases. The author concludes

that, despite the common etiological factor of imprisonment, the form of psychosis depends on the previous constitution and personality.—*R. C. Moore* (Boston Psychopathic Hospital).

3013. *Kephart, N. C. Influencing the rate of mental growth in retarded children through environmental stimulation.* *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 223-230.—A study of IQ changes in a group of 50 high-grade morons and borderline defectives (av. IQ 67.6) admitted to the Wayne County Training School showed that rate of mental growth can be significantly increased in a favorable institutional situation by specific stimulating programs, regardless of the chronological age levels. No physical evidence of pathological disturbance was present in this group. Three ways in which the IQ is influenced by the environment where this type of child is concerned are: (1) the original home setting results in a declining IQ; (2) a reverse tendency occurs in a favorable institutional setting; (3) specialized training programs result in a significant rise in IQ.—*P. S. de Q. Cabot* (Simmons).

3014. *Krafft-Ebing, R. v. Psychopathia sexualis.* (12th ed.) New York: Pioneer Publications, 1939. Pp. 639. \$3.00.

3015. *Lastras, J. B. Las enfermedades nerviosas en el coloniaje.* (Nervous disorders in the Colony.) Lima: Editorial Rímac, 1938. Pp. 73.—This is a study of the nervous disorders occurring in colonial Peru, with estimations of the possible influence of race and racial mixture. The etiology of disorders such as alcoholism, drug addiction, syphilis, etc., and their treatment are discussed. The final chapter deals with the folklore of the country and its influence upon such disorders.—*J. E. Bader* (Letchworth Village).

3016. *Malzberg, B. A follow-up study of patients with dementia praecox treated with insulin in the New York civil state hospitals.* *Ment. Hyg., N. Y.*, 1939, 23, 641-651.—The study was made one year after the termination of the treatment. Immediately after the termination 3% of the patients were reported as recovered and 65% as showing improvement. One year afterward 3% were recovered and 49% improved. Patients with short durations of the disease prior to treatment showed the highest rate of recovery and improvement. Those reported as recovered and much improved showed the highest rates of discharge and parole and the lowest rates of relapse.—*P. Brand* (New York City).

3017. *Marchionini, A. Pathogenetische, klinische und therapeutische Fortschritte auf den Grenzgebieten von Dermatologie und Neurologie.* (Pathogenetic, clinical, and therapeutic advances in the border zones of dermatology and neurology.) *Fortschr. Neurol. Psychiat.*, 1940, 12, 43-58.—*D. S. Oberlin* (Delaware State Hospital).

3018. *McKinney, F. The University of Missouri personality clinic.* *Ment. Hlth Observ.*, 1940, No. 6-7, 26-30.—This clinic is described briefly under the following topical headings: administrative set-up,

clinical routine, contents of the pre-interview blank, other means of analysis, therapeutic suggestions.—*M. Keller* (Yale).

3019. *Miyagi, O. Shukaku tairitsu kan sōshitsu.* (Loss of the feeling of distinction between subject and object.) *Jap. J. exp. Psychol.*, 1939, 5, 133-141.—Morbid nirvanism or the loss of the feeling of distinction between subject and object is a symptom which appears in the early stage of schizophrenic development; it is a sort of autism lasting several minutes, and must rigidly be distinguished from the more usual depersonalization or derealization. Two cases showing this symptom are cited.—*R. Kuroda* (Keijo).

3020. *Montesano, G. Edonofilia e algofilia.* (Hedonophily and algophily.) *Assist. Minoren. anorm.*, 1939, 6-10, ser. 2.—The author analyzes the causes of hedonophily and algophily and studies the variety of forms to be found, the mechanisms generating special forms, the semeiological value of relative tendencies, and methods for giving practical help.—*R. Ricci* (Rome).

3021. *Morgan, L. O. Alterations in the hypothalamus in mental deficiency.* *Psychosom. Med.*, 1939, 1, 496-507.—The diencephala from 16 brains of institutional mental defectives were studied and compared with 6 "apparently normal" brains as controls. Short case histories of the patients are presented and the general pathological changes in brain tissue noted in sections stained with the routine iron-hematoxylin technique. The anterior hypothalamus is chiefly concerned with growth and nutrition, the accumulation and conservation of energy, and the posterior hypothalamus with the mobilization and discharge of energy. It is suggested that cell reduction occurred at an earlier period in the history of the patients. Although evidence is lacking to show that hypothalamic alterations are a primary causative factor in mental deficiency, there seems to be no doubt that the hypothalamus plays an important part in its etiology as to both somatic and mental abnormalities characteristic of this condition.—*P. S. de Q. Cabot* (Simmons).

3022. *Morikawa, K. Eiyō kaizen ga seishin ijō no hatsuiku ni oyobosu eikyō.* (On the effects of improved nutrition upon the growth of feeble-minded children.) *Kyōiku Shinri Kenkyū*, 1939, 14, 254-261.—The IQ's of 18 feeble-minded children from 7 to 19 years of age were found to be under 75; with regard to physical development also they were generally inferior to normal children.—*R. Kuroda* (Keijo).

3023. *Myerson, A. Errors and problems in psychiatry.* *Ment. Hyg., N. Y.*, 1940, 24, 17-35.—In considering a plan of action for the future of psychiatry and mental hygiene, consideration must be given to errors that have interfered with progress in the past. Over-unification, the inadequate program of the state hospitals, the error of treating separately two factors which are interdependent, authoritative statements which are difficult to

prove, "age-of-onset" reasoning, and diagnosis on the basis of prognosis, present problems which should be reconsidered to allow for the advancement of psychiatry and mental hygiene. To formulate a working program it is necessary to make the hospitals better institutions, to foster research, to build training centers for psychiatrists, and to present a program of education that is concrete and relates to specific fields.—*P. Brand* (New York City).

3024. Osborne, R. L. *Prognosis in schizophrenia*. *J. Amer. med. Ass.*, 1940, 114, 846-847.—*W. J. Brogden* (Wisconsin).

3025. Patterson, K. *The role of social worker with respect to adult patients of a mental hygiene clinic*. *Smith Coll. Stud. soc. Work*, 1940, 10, 235-265.—What psychiatric social work is and what the psychiatric social worker does are the questions which the author was interested in determining. For this purpose she selected 100 cases from the Northern New Jersey Mental Hygiene Clinic for special study. She found that social workers' participation is of real importance and that social workers in adult mental hygiene clinics have need of considerable training in the psychiatric aspects of case work, for whatever division of social work they happen to be doing, they must understand emotional problems in order to recognize and procure significant material or to utilize it in their own case-work treatment.—*K. S. Yum* (Chicago).

3026. Piotrowski, Z. *Rorschach manifestations of improvement in insulin treated schizophrenics*. *Psychosom. Med.*, 1939, 1, 508-526.—60 schizophrenic patients at the N. Y. State Psychiatric Institute and Hospital were examined with the Rorschach method before insulin treatment and retested shortly after the termination of the treatment. Comparisons were made between pre-treatment and post-treatment records. Generally the differences between the two sets of Rorschach records paralleled the clinically observed differences in improvement. Improvement after successful insulin treatment was revealed in the Rorschach record with respect to (1) speed and ease with which interpretations were given, (2) logical content of responses, (3) increase in number and quality of movement responses, (4) increase in number and percentage of form-color responses, (5) increased percentage of sharply perceived forms, (6) elaboration of percepts, (7) combining details into meaningful wholes. Generally speaking, patients who improve after insulin treatment have a more coordinated and constructive inner life and are more capable of good emotional adjustment than before treatment. Details of case studies of two male patients are given to illustrate the changes in the Rorschach records.—*P. S. de Q. Cabot* (Simmons).

3027. Pollock, H. H. *A statistical study of 1140 dementia praecox patients treated with metrazol*. *Psychiat. Quart.*, 1939, 13, 558-568.—The data point to more satisfactory results when insulin is the therapeutic agent, with metrazol useful as a

supplementary treatment in certain cases.—*R. C. Moore* (Boston Psychopathic Hospital).

3028. Pollock, H. M. *Use and effect of alcohol in relation to alcoholic mental disease before, during, and after prohibition*. *Ment. Hyg., N. Y.*, 1940, 24, 112-124.—A special schedule report was kept for each alcoholic case by the New York State Department of Mental Hygiene in its annual compilation of data concerning mental disease since 1913. Because of important changes in federal and state regulation of the liquor traffic since 1914, two comparative studies have been made, viz., of the period 1920-1923 and the period 1936-1937. The onset of alcoholic mental disease usually occurs only after several years of excessive drinking, the period for men being longer than that for women. The average age of alcoholic patients on admission to a state mental hospital is about 45 years. Whiskey and beer are the principal beverages causing alcoholic mental disease. Alcoholic mental disease may result from either periodic or regular drinking. Reduction of efficiency in employment and loss of position commonly precede the onset of the disease. The use of drugs is not an important factor in the causation of alcoholic mental disease.—*P. Brand* (New York City).

3029. Rathbone, J. L. *Methods of relaxation*. *Teach. Coll. Rec.*, 1940, 41, 506-512.—*J. M. Stalaker* (Princeton).

3030. Ricci, A. *Studi di diagnosi differenziale col reattivo del Rorschach*. (Studies on the differential diagnosis attained with the Rorschach test.) *Cervello*, 1939, No. 1, 11-20.—A comparison is made between the results obtained with the Rorschach test from approximately 100 normal boys and 30 feeble-minded boys.—*R. Ricci* (Rome).

3031. Riemer, M. D. *Psychology of ideas of influence*. *Psychiat. Quart.*, 1939, 13, 401-419.—The development of ideas of influence is traced in the analysis of a case characterized by a strong narcissistic trend.—*R. C. Moore* (Boston Psychopathic Hospital).

3032. Rojas, N. *La psiquiatría en la legislación civil*. (Psychiatry in civil legislation.) Buenos Aires: Valerio Abeledo, 1938. Pp. 222.—The book is written in an effort to arouse awareness of the need for psychiatry in legislation and in enforcement of laws. The seven chapters were originally given as lectures in the University of Buenos Aires, and cover such problems as judicial acts, testimonials, marriage and divorce, and alien laws.—*J. E. Bader* (Letchworth Village).

3033. Sampliner, R. B. *The psychic aspects of bronchial asthma*. *Psychiat. Quart.*, 1939, 13, 521-533.—The pertinent literature is reviewed and analyzed, bringing out the importance and effectiveness of psychotherapy in the treatment of bronchial asthma before physical changes have resulted.—*R. C. Moore* (Boston Psychopathic Hospital).

3034. Schoenberg, M. J. *Role of states of anxiety in the pathogenesis of primary glaucoma*. *Arch. Ophthal.*, Chicago, 1940, 23, 76-90.—9 case

histories are given in support of the thesis that states of anxiety may act as the precipitating factor for development or maintenance of high tension in glaucomatous patients. Certain patients had themselves observed this relationship. The association is explained by the fact that the physiological changes in anxiety states are similar to those in acute emotional upsets, with hormones and the autonomic nervous system transmitting effects of the disturbance. Peculiar effects of various drugs on glaucomatous eyes indicate that the sympathetic and parasympathetic innervations are out of balance in these eyes and hence they show abnormal responses to the changes associated with states of anxiety.—*M. R. Stoll* (Ohio State).

3035. Schoenberg, M. J. **Psychosomatic interrelations.** *Arch. Ophthal., Chicago*, 1940, 23, 91-103.—The association of glaucomatous attacks with states of anxiety in many patients indicates that psychotherapy may be as important as somatic therapy for these individuals, and also that a diagnosis without a survey of the patient's emotional life is to be regarded as an incomplete diagnosis. Discussion of the paper by a number of hearers indicated agreement with the general thesis but denial that ophthalmologists should attempt any psychotherapeutic measures.—*M. R. Stoll* (Ohio State).

3036. Selling, L. S. **Men against madness.** New York: Greenberg, 1940. Pp. xii + 342. \$3.50.—This book is a survey of the history of "the fight against madness." It discusses the very early background of this fight, in which "the ancients had need to recognize the fact that illnesses of the mind were illnesses which could be studied." Some "therapeutic" practices of primitives are discussed. The contribution of the anatomists is then described. The next step, that of treating the insane as patients, is discussed through the stories of Conolly, Pinel, and Dorothea Dix. Two further trends are then analyzed: one is that taken by Gall, Claude Bernard, Hughlings Jackson, etc., "who studied bodily function with relation to the mind"; the other is that followed by Mesmer, Braid, Bernheim, and Freud, whereby functional diseases "could be treated by psychological rather than by medical means."—*C. N. Cofer* (Brown).

3037. Sirlin, L. **Trastornos funcionales del sexo.** (Functional sex disorders.) La Plata: Librería y Editorial "Atenea," 1939. Pp. 259. \$5.—Psychorganic disorders of sex functioning are treated from a medical standpoint, with a view to diagnosis and treatment. The author studies the perversions, sexual impotence, sexual disorders in the male and female, and changes in sexual sensitivity. An extensive bibliography is included.—*J. E. Bader* (Letchworth Village).

3038. Slavson, S. R. **Group therapy.** *Ment. Hyg., N. Y.*, 1940, 24, 36-49.—Group therapy, as distinguished from therapy in a group, is treatment in which no discussion is initiated by the therapist, and in which interpretation is given rarely and

only under specific conditions. Group therapy is based on the need of the child for the security of unconditioned love, for building a sense of self-worth, for a genuine interest to occupy his leisure time, and for significant experience in group relations. Group therapy seems valuable for children of specific individual characteristics, and for dull children unable to participate in interview therapy. It is used as supplementary to case-work treatment, as tapering off of individual treatment, as continuation of individual treatment for socialization, and as exclusive therapy. It is not suitable for active homosexuals, neurotic delinquents, compulsive homicidal, certain types of oral aggressiveness, and children who steal outside of the home. Case histories are included.—*P. Brand* (New York City).

3039. Spragg, S. D. S. **Relations between intelligence and morbid addictions.** *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 285-290.—Deviations in intelligence as measured by intelligence tests are not related to proneness to addiction. Generally there is insufficient knowledge about the mental characteristics of drug addicts. The etiology of morbid addictions is more likely to be related to personality maladjustments such as emotional conflicts, feelings of inferiority, and escape than to intellectual inadequacies.—*P. S. de Q. Cabot* (Simmons).

3040. Sunley, E. M. **"Pauper idiots and lunatics" in Kentucky.** *Soc. Serv. Rev.*, 1939, 13, 263-272.—A review of 145 years of state extra-mural care of "pauper idiots and lunatics." Since 1792 the state has paid an allowance to committees or individuals for the care of "pauper idiots and lunatics." As there is no provision for psychiatric or psychometric tests, there is no way of knowing whether or not the beneficiaries are idiots. The principle of caring for this group outside of institutions is a good one, but it has not operated and will not operate effectively unless the beneficiaries are closely supervised by a competent and skilled professional staff of workers.—*G. S. Speer* (Child Guidance Service, Springfield, Ill.)

3041. Tarozzi, G. **Sulle psicosi gemellari.** (On psychoses in twins.) *Note Psichiat., Pesaro*, 1938, No. 3, 413-445.—The author studies a case of psychosis in twin sisters, one of whom was a dementia patient, the other being psychasthenic. He believes that the term psychosis may always be used in cases of twins where the same mental malady breaks out spontaneously with similar symptoms for both subjects.—*R. Ricci* (Rome).

3042. Valega, J. F. **Efectos neuro-psíquicas del trauma eléctrico.** (Neuropsychic effects of electric shock.) *Rev. Neuro-Psiquiat.*, 1939, 2, 362-372.—Observations of patients shocked by high voltages have shown that the most common effects are unconsciousness and amnesia for the accident and the events immediately preceding it. The variations depend on conditions at the time of the accident, and the seriousness of the symptoms on the passage of the current through the brain. Secondary effects have been described, such as temporary paralysis.

Cerebral injuries most frequently found are hemiplegia, epilepsy, and speech disorders. Immediate mental disorders have also been noted, such as compensatory neurosis and more or less serious psychotic conditions. The writer discusses the pathological changes following various intensities of shock. He describes a case of his own involving mental disturbances resembling anxiety neurosis, which gradually disappeared.—*J. E. Bader* (Letchworth Village).

3043. Wachter, P. Über den Zusammenhang der typischen Formen des Gestalterlebens mit den Temperamentskreisen Kretschmers. (The typical forms of experiencing Gestalten as related to Kretschmer's temperament cycles.) *Arch. ges. Psychol.*, 1939, 104, 1-47.—Estimations of optical illusions involving total perceptual forms were determined by the method of average error for a normal group and for 104 psychotics, comprising twice as many schizophrenics as manic-depressives. The normal subjects included schizothymes and cyclothymes. The schizothymes tended to experience less illusion than the cyclothymes, and hence more detail. The schizophrenics' experience was similar to that of the schizothymes. For the manic-depressives the phase of the disease was a factor, the manics being more "cyclothymic." For all psychotics the degree of the psychosis was progressively disruptive of the perceptual experience.—*H. D. Spoerl* (American International College).

3044. Wall, C. Observations on the behavior of schizophrenic patients undergoing insulin shock therapy. *J. nerv. ment. Dis.* 1940, 91, 1-8.—The behavior of schizophrenic patients during insulin shock therapy was observed with reference to progressive changes of behavior. Biting and sucking movements were shown in all cases, with genital and heterosexual behavior appearing later in some. It is noted that the greatest degree of improvement was coincident with the appearance of the more sexual behavior, and it is suggested that here may be an indication of the time to terminate the insulin treatment. The progressive change in behavior may be interpreted along the psychoanalytical lines of regression and catharsis, or more generally, as secondary to the general improvement.—*R. C. Moore* (Boston Psychopathic Hospital).

3045. Washburn, A. C. Some aspects of the neuroses. *Ann. intern. Med.*, 1940, 13, 1388-1398.—*W. J. Brodgen* (Wisconsin).

3046. Watson, J. Psychotherapy for the poor: a state-city cooperative enterprise in the field of mental hygiene. *Ment. Hyg., N. Y.*, 1939, 23, 558-566.—A clinic was established in Worcester, Mass., in partnership with the city and state, to furnish psychiatric assistance to the indigent. Patients were referred from public and private welfare organizations. The emphasis upon psychotherapy as the only treatment given influenced the selection of cases referred. The patient receives an initial interview and advisory consultation. The number of patients seen in the course of a year depends upon

where the emphasis is placed. Educational work is conducted in the form of lectures and teaching courses prepared for the physicians and social workers of the city.—*P. Brand* (New York City).

3047. Whitehorn, J. C. Intrapyschic sociology. *Ment. Hlth Obsr.*, 1940, No. 6-7, 31-35.—The relation of interpersonal attitudes to mental health is emphasized.—*M. Keller* (Yale).

3048. Wittkower, E., & Spillare, J. P. Neuroses in war. *Brit. med. J.*, 1940, Part I, 223-225.—*W. J. Brodgen* (Wisconsin).

3049. Zutt, J. Über seelische Krankheitsentstehung. (The psychical origin of disease.) *Klin. Wschr.*, 1940, 19, 36-40.—A discussion of the book of the same title by Siebeck, Schultz-Hencke, and v. Weizsäcker. Every life, whether healthy or not, undergoes inner disunion. People who emphasize this disunion, like Nietzsche before his illness, are not simply psychopaths. Happiness or success and their opposites are never crucial for health. All that is decisive is whether the psychopathological mechanisms are important in one's life; they provide suitable terminology. The confused concept of the neurosis follows.—*P. L. Krieger* (Leipzig).

[See also abstracts 2761, 2861, 2893, 2903, 2929, 2951, 3057, 3071, 3108, 3116, 3137, 3143, 3146, 3153, 3170, 3193, 3218, 3275, 3286, 3292, 3294.]

PERSONALITY AND CHARACTER

3050. Carter, G. C., & Shannon, J. R. Adjustment and personality traits of athletes and non-athletes. *Sch. Rev.*, 1940, 48, 127-130.—Athletes are slightly superior in adjustment and significantly superior in personality traits.—(Courtesy *J. educ. Res.*)

3051. Castaldi, L. Eredità delle attitudini psichiche. (The inheritance of psychological aptitudes.) *Rass. med., Sarda*, 1939, 41, 5-9.—A brief discussion of results obtained by several observers on this subject.—*R. Ricci* (Rome).

3052. Coriat, I. H. Humor and hypomania. *Psychiat. Quart.*, 1939, 13, 681-688.—The parallels between humor and the transient hypomania occurring during the state of positive transference are pointed out and discussed with reference to the ego-super-ego relationships, and the modification of this relationship in humor and during analysis.—*R. C. Moore* (Boston Psychopathic Hospital).

3053. Jelliffe, S. E. The Christian formulation and medicine. *Psychiat. Quart.*, 1939, 13, 705-710.—The age period 28 to 40 is considered as a period of libidinal maturation and freedom from narcissism, as exemplified by an analysis of the significance of Jesus' period of "going into the wilderness" and the final emergence of a pattern of social sublimation.—*R. C. Moore* (Boston Psychopathic Hospital).

3054. Masaki, T. Seikaku to sono rikai no aida-gara ni tsuite. (Character and its understanding.) *Kyōiku Shinri Kenkyū*, 1939, 14, 46-62.—Character is defined as a real Gestalt of expression-understanding.

ing in the social field of the individual. The author discusses various forms of social relations speculatively from this standpoint.—*R. Kuroda* (Keijo).

3055. *Milani, C. P.* *Un nuovo sport: conoscersi.* (A new game: know yourself.) Milan: Luigi Alfieri, 1939. Pp. 33. L. 5.—*R. Ricci* (Rome).

3056. *Pichon, E.* *La personne et la personnalité vues à la lumière de la pensée idiomatique française.* (The self and personality as seen in the light of French idiomatic thought.) *Rev. franç. Psychanal.*, 1938, 10, 447-461.

3057. *Saporito, F.* *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol.*, Roma, 1939, 3, 633-653.—The author points out the chronological, logical, and doctrinal priority of neuropsychiatry in the study of human personality and describes a method for its study. He then seeks an answer to his question as to why, how, and when such a study may be made and by whom.—*R. Ricci* (Rome).

[See also abstracts 2869, 2886, 2897, 2960, 3012, 3018, 3026, 3030, 3075, 3113, 3114, 3116, 3117, 3118, 3119, 3120, 3121, 3122, 3123, 3127, 3128, 3130, 3134, 3138, 3139, 3140, 3142, 3145, 3147, 3149, 3150, 3156, 3157, 3158, 3159, 3165, 3166, 3169, 3181, 3222, 3224, 3275.]

GENERAL SOCIAL PROCESSES

(incl. Esthetics)

3058. *Abbe, M.* *Gainen ni tsuite. Ba no naka no taishō to kotoba.* (The concepts of words in fields.) *Jap. J. exp. Psychol.*, 1939, 5, 143-148.—As for the relation between words and objects in fields, the author discusses certain topics concerning substitution with a known word for an unknown object, different words used for the same object, the distribution of vectors in a field, and the influence of words on concepts by thematic field in sentences.—*R. Kuroda* (Keijo).

3059. [Anon.] *Investigation of un-American propaganda activities in the U. S. Hearings, 75th Congress, 76th Congress, H. Res. 282, 1939-1940, 1-9.* Pp. 5823.—The purpose of this investigation is stated as follows: "To investigate (1) the extent, character, and objects of un-American propaganda in the United States, (2) the diffusion within the United States of subversive and un-American propaganda that is instigated from foreign countries or of a domestic origin and attacks the principles of the form of government as guaranteed by our Constitution, and (3) all other questions in relation thereto that would aid Congress in any necessary remedial legislation."—*G. R. Thornton* (Purdue).

3060. *Baldrian, K.* *Die künstliche Lautsprachbildung als eigenartige Quelle sprachpsychologischer Erkenntnisse.* (Artificial development of speech as a unique source for the psychology of language.) *Arch. ges. Psychol.*, 1939, 103, 496-498.—

Description of a pamphlet by the same author dealing with teaching speech to the congenitally deaf.—*H. D. Spoerl* (American International College).

3061. *Barnes, J.* *A study of recreation.* *J. higher Educ.*, 1940, 11, 90-93.—150 student nurses at the University of Minnesota recorded their evening spare time activity over a period of 31 days. 46% of their time was spent in their own hall in entertainment supplied there. 28% indicated social activity of other types. This latter activity breaks down into the following percentages: 10% at home or at friends' homes; 6% at theater; 4%, university functions; 3% down town; 2% sports, participation. The study attempted to discover whether the elaborate social program of the University was meeting their needs and desires. The answer was rather clear in that only 4% of students' leisure time was invested in these seemingly attractive activities, which ran the entire gamut of student interests. Certain reasons are given for certain types of difference within the group. It is evident that these young women do not demand extravagant and elaborate entertainment.—*R. A. Brotemarkle* (Pennsylvania).

3062. *Blaser, W.* *Die Bedeutungsbildung auf der Struktur Gebogen und Zusammen in der Ewe-Sprache.* (The formation of meanings based in "bent" and "together" in the Ewe language.) *Arch. ges. Psychol.*, 1939, 103, 353-412.—The author exhibits, for this Sudanese language, the interrelations of meanings that have developed around variations of and formations from certain stem groups; in each instance the range of meanings and elaborations is considerable. By judging meanings from the "nearness to their concrete origins, it is possible to set up a form-psychological arrangement of the meanings." This mode of approach implies thoroughgoing revision of dictionary listings.—*H. D. Spoerl* (American International College).

3063. *Blumer, H.* *The problem of the concept in social psychology.* *Amer. J. Sociol.*, 1940, 45, 707-719.—Ill-defined and ambiguous concepts are detrimental to definitive theorizing and probative research. Current proposals for meeting this problem are inadequate. Investigation into the peculiar difficulties involved in applying concepts to human conduct is required. The observer of human conduct can identify physical action, but the social aspect of the act may be termed an inference, and the problem of the ambiguity of concepts becomes most apparent in that field of human conduct where there is minimal consensus regarding valid inferences. Many of the primary and basic observations of human conduct are necessarily a matter of judgment and inference. The answer to the problem is not to repudiate such observations but to improve them by enriching the experience of observers so that more dependable judgments can be made.—*D. L. Glick* (Brown).

3064. *Boisen, A. T.* *Religious education and human nature.* *Relig. Educ.*, 1940, 35, 13-18.—The social nature of man, the concept of God, and the concept of the self are considered to be the basis

of all religious experience. Then follows a discussion of loyalty to the group, unification, and sex education as principles of vital importance in religious education.—*F. A. Mote, Jr.* (Brown).

3065. **Britt, S. H.** *Time lag in the law.* *Amer. Scholar*, 1940, 9, 201-213.—A discussion of the use of tests of blood grouping in courts throughout the country. The author describes the factors which produce a lag of years between the validation of scientific findings and their acceptance in courts of law.—*R. M. Gagné* (Brown).

3066. **Cantril, H., Gaudet, H., & Herzog, H.** *The invasion from Mars.* Princeton: Princeton Univ. Press, 1940. Pp. xv + 228. \$2.50.—This is the Office of Radio Research report of the panic due to the broadcast of the play *The War of the Worlds*, October 30, 1938. The complete script of the play is reproduced, and there follow chapters on the nature and extent of the panic, how the stimulus was experienced, description of reactions, critical ability, conditions inhibiting critical ability, the historical setting, the individual case, and reasons for the panic. The principal correlate of panic reactions found was critical ability, and this was best measured by amount of education. Extensive use is made of quotations from interviews. Appendices give miscellaneous information, the interview schedule, and tables, and there is an index.—*R. R. Willoughby* (Brown).

3067. **Capron, E. B.** *WPA workers: standards of living and attitudes toward their jobs.* *Smith Coll. Stud. soc. Work*, 1940, 10, 202-234.—The author has selected for a special study a group of 45 workers and their families who lived in one section of Cincinnati and received the minimum WPA wage, which was \$60.50 per month for an unskilled worker in Ohio. Her case-study data are divided, with the aid of the interviews, into the following groups: satisfaction, 8; acceptance, 22; compulsory acceptance, 8; and dissatisfaction, 7. She finds that WPA probably fulfills its stated aims fairly adequately. However, changes in living standards make her doubtful whether the implied objective of maintaining "health and decency" is being secured.—*K. S. Yum* (Chicago).

3068. **Cattell, R. B.** *Effects of human fertility trends upon the distribution of intelligence and culture.* *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 221-233.—A survey of investigations bearing on the problem of biological changes in the constitution of population, evidence on differential fertility and intelligence, and analysis of natural selection with respect to intelligence, the calculation of a one-generation change, and the causes and consequences of the differential birth rate.—*P. S. de Q. Cabot* (Simmons).

3069. **Chapple, E. D., & Arensberg, C. M.** *Measuring human relations: an introduction to the study of the interaction of individuals.* *Genet. Psychol. Monogr.*, 1940, 22, 3-147.—The authors, along with others, had been interested in "an attempt to apply to groups in Western European civilizations

the methods used in researches on primitive peoples." It was necessary to develop methods which did not depend upon intuition. This involved the working out of "objective methods for the analysis of language" and discovering "what the observable facts actually were and how they could be described objectively." Data were secured from Newburyport, Massachusetts, and County Clare, Ireland. Relations of individuals were described in terms of their interaction in events, and thus a "framework for a systematic description of human relations" was developed. Methods were evolved by which to "interpret the statements of people in order to obtain an accurate but qualitative description of past events as a method of diagnosis." The authors feel that the methods may be used by others interested in the same field. 25 citations are included in the bibliography.—*F. M. Teagarden* (Pittsburgh).

3070. **Cutten, G. B.** *Instincts and religion.* New York: Harper, 1940. Pp. 154. \$1.50.—The author believes "that liberal religion has too long appeared mainly to the intellect, and that the emotional, instinctive nature of man has been ignored."—(Courtesy *Publishers' Weekly*).

3071. **Deutsch, A.** *The convergence of social work and psychiatry: an historical note.* *Ment. Hyg., N. Y.*, 1940, 24, 92-97.—A brief historical discussion of the reasons for the present close relationship of social work and psychiatry, and how they are of mutual benefit.—*P. Brand* (New York City).

3072. **Devereux, G.** *A conceptual scheme of society.* *Amer. J. Sociol.*, 1940, 45, 687-706.—It is possible to construct a conceptual scheme of society based upon three concepts only, all of which are derived from sense data and are operationally definable: "individual," "order," and "motion." Using the reasoning process of statistical mechanics and the calculus of probabilities, sets of sense data pertaining to individuals may be subjected to logical analysis. Three basic theorems of social process, with corollaries, are enunciated. Until statistical hereditary mechanics are evolved it will be impossible to use mathematical formulas in sociology wherever process is involved.—*D. L. Glick* (Brown).

3073. **Doob, L. W.** *The plans of men.* New Haven: Yale Univ. Press, 1940. Pp. ix + 411. \$3.00.—The author has attempted to integrate some of the aspects of the social sciences with some of the practical problems with which we are confronted in our everyday life. The book consists of four parts. Part I, an introduction, deals with the nature of planning and includes such discussions as: why planning, what elements are required, and what are we interested in planning. Part II represents a bird's-eye view of human activities—biological, social, political, economic, adjustment, mastery, etc. Part III is concerned with planning of various types—individual, social, economic, political, and regional; and in Part IV the author discusses some of the perplexing problems in planning. There is a bibliography and an index.—*K. S. Yum* (Chicago).

3074. Ernst, E. *Sprache und Missverständnis. Ein Beitrag zum Problem: Denken und Sprechen.* (Speech and misunderstanding. A contribution to the problem of thinking and speaking.) *Arch. ges. Psychol.*, 1939, 104, 439-454.—Understanding what is told to one depends upon content, context, and attitude. Each of these aspects represents sources of misunderstanding. The personalities of speaker and listener are important factors, even when the structural meaning of language is not in doubt. Misunderstanding is more a function of language expression than of inadequacy in thinking.—*H. D. Spoerl* (American International College).

3075. Fay, P. J., & Middleton, W. C. Certain factors related to liberal and conservative attitudes of college students: I. Father's occupation: size of home town. *J. soc. Psychol.*, 1940, 11, 91-105.—Thurstone attitude scales revealed that there are statistically reliable differences in attitudes towards communism, patriotism, the Constitution, law, and censorship between students who live in communities of varying size, and whose fathers are engaged in different occupations. The manual-labor group is most favorable to communism, the agriculture group least favorable; the commercial and manual-labor groups are most favorable to patriotism, the professional and agricultural groups least favorable; the commercial group is most favorable to the Constitution, the agricultural group least; the agricultural group is most favorable to censorship, the manual-labor group least. A combined liberalism rank from five scales showed students from the country, and from cities of over 500,000, as most liberal, and those in cities from 25,001 to 100,000, and from 100,001 to 500,000, as most conservative.—*G. Brighouse* (Occidental).

3076. Fernandes, G. *O folclore mágico do norte-este.* (Magic folklore of the northeast.) Rio de Janeiro: Biblioteca de Divulgação Científica, 1938. Pp. 177.—The book gives a detailed description of the magical elements that exist in the northeastern Brazilian villages. The magic practices are interpreted as a system of symbols that embrace all the expressions of life. The author observed that in the Negro folklore there is a complete conciliation of all religious sects, some having characteristics, e.g., of the old Babylonian and Egyptian religious practices. He found that the old myths have been incorporated into actual customs and ways of living. The question is raised whether these common factors are not the expression of the collective unconscious.—*J. E. Bader* (Letchworth Village).

3077. Foley, J. P., Jr. The "baboon boy" of South Africa. *Science*, 1940, 91, 291-292.—See XIV: 2664.

3078. Forchhammer, E. *Über einige Fälle von eigentümlichen Sprachbildungen bei Kindern.* (Some cases of secret languages of children.) *Arch. ges. Psychol.*, 1939, 104, 395-438.—The author gives a summary account of instances of secret languages, concluding that these are not really independent, but are rather distortions of normal

speech forms. Observations of aphasics suggest implications in regard to cerebral functioning. Secret languages seem to be undeveloped as far as symbolical functioning is concerned.—*H. D. Spoerl* (American International College).

3079. Garnett, C. B., Jr. *Wisdom in conduct.* New York: Harcourt, Brace, 1940. Pp. xv + 458. \$2.50.—This is an ethics text designed to be "intelligible to the student in the introductory college course as well as to the lay reader." By consideration of the limitations of historical theories that ethics is the study of right conduct, of the good, of the inner life, or of group life, an ethical theory whose classical proponents are Confucius, Socrates, and Aristotle is developed. Called "wisdom in conduct," this theory is that "ethics is concerned with every phase of the practice of human living." The total ethical situation is constituted by a person's character, his motives and habits expressing that character at any particular time, his processes of discrimination, evaluation, and choice, his actions, his ends or goals, and the other people or groups of people involved in his actions. Wisdom in conduct consists in giving each of these elements its proper function and emphasis. This theory is applied to contemporary ethical problem situations of positive and negative types, the search for goods and the prevention of evils, respectively.—*J. H. Jackson* (Brown).

3080. Gaston, E. T. *Motor-visual imagery in tonal thinking.* *Music Educators J.*, 1940, 26, No. 4, 23; 79-81.—A review of imagery studies, with a plea for some "space-frame instrument" simpler than the piano for beginners in music. This is held to be essential for the proper integration of the sense fields.—*P. R. Farnsworth* (Stanford).

3081. Griffing, J. B. *Natural eugenics in Brazil.* *J. Hered.*, 1940, 31, 13-16.—Brazilian families into which college students are born are distinctly larger than similar families in the United States, averaging, city and country included, $6.76 \pm .13$ living children, with $1.48 \pm .16$ dead. These families are larger than those of their parents (large cities excepted). Owing to the high mortality rate in the poorer classes, the average number of living children of planters in the state of Minas Geraes is almost double that of laborers; namely, $8.58 \pm .22$ as against $4.85 \pm .20$. The birth rate in Brazil is higher than that in China. An excess of superior over inferior classes exists in both, exactly opposite to the trend in the United States and some European countries.—*G. C. Schwesinger* (American Museum of Natural History).

3082. Jastrow, J. *Villfarelser och vetande.* (Wish and wisdom.) Stockholm: Natur och Kultur, 1939. Pp. 374. Kr. 7.75.

3083. Jung, M. [Ed.] *Modern marriage.* New York: Crofts, 1940. Pp. 434. \$3.75.

3084. Kamat, V. V. *Sex differences among Indian children in the Binet-Simon tests.* *Brit. J. educ. Psychol.*, 1939, 9, 251-256.—Distributions of mental ages measured by Stanford-Binet tests adapted to children in India, for 638 boys and 436

girls, ages 2 to "16 and above," show that the two sexes start together, and that as they grow older the girls progress at a lower level until about the eleventh year, when their curve again shows a steeper ascent and overtakes that of boys at about the thirteenth year. The girls fall back slowly at higher ages. The lower norms for Indian girls as compared with English girls is attributed to inferior literary environment.—*K. M. Cowdry* (Stanford).

3085. **Kanetsune, K.** [On the pitch of vowels.] *Jap. J. Psychol.*, 1939, 14, 319-320.—*R. Kuroda* (Keijo).

3086. **Katura, H.** [On the historical shift of 5-7 syllable meter into 7-5 one in Japanese versification.] *Jap. J. Psychol.*, 1939, 14, 315-318.—The author selected as an instance a long poem in *Mannyoshu* and suggested an inherent motive for transformation into 7-5 syllable meter from 5-7, which might be thought of as manifested in the construction itself. Along with this motive he points out some external cultural conditions as an important factor in this tendency.—*R. Kuroda* (Keijo).

3087. **Kemény, F.** *Musikpsychologische Versuche—musikalische Tests.* (Studies in the psychology of music: tests.) *Int. Z. Erzieh.*, 1939, 8, 392-394.—500 schoolgirls answered 15 questions about the sensory impressions made by records played to them. The readiness to express verbally musical experiences is evident, but the capability of expression varies and is manifested as intellectual, affective, visual, and motor. It may be increased through systematic repetition of the tests. The domains of feeling and intellect frequently overlap, the pupils sometimes reporting thoughts and sometimes feelings.—*P. L. Krieger* (Leipzig).

3088. **Kilpatrick, W. H.** The nature of human nature. *Relig. Educ.*, 1940, 35, 3-12.—The author discusses the old (i.e. Greek and Scholastic) views of human nature and the present view. The present conceptions of human nature and their meaning for the "good life" and religion are dealt with from the point of view of the teaching of religion.—*F. A. Mote, Jr.* (Brown).

3089. **Kirihara, S.** *Seinen no dokusho ni kansuru chosa. 1. Rodo seinen no yomimono.* (A study of the reading of youth. 1. Readings of young laborers.) *J. Sci. Labour*, 1939, 16, 627-636.—Young laborers read in the main newspapers and journals, and have a great interest in current topics. The varieties of journals they read are so few that the majority read a very restricted kind of journal.—*R. Kuroda* (Keijo).

3090. **Koga, Y., & Naka, Y.** *Byōga nōryoku no kenkyū.* (Studies on the ability to draw.) *Kyōiku Shinri Kenkyū*, 1939, 14, 509-519; 581-590; 749-761.—151 girls of a higher girls' school were required to copy several drawings and figures, e.g. a box, a doll, an angle, two lines, and geometrical figures. These materials were statistically treated and four factors were found to account for their intercorrelations: one is an apprehension or an expression of the

relation as a whole, the second is a mere perception which has no connection with the expressive ability, the third is a mnemonic reproductive skill, and the fourth is exactness of perception.—*R. Kuroda* (Keijo).

3091. **Lerch, E.** *Sinn, Sinne, Sinnlichkeit.* (Sense, senses, sensuality.) *Arch. ges. Psychol.*, 1939, 103, 446-495.—The negative tendency of the word "sensual" and its derivatives presents a psychological and philological problem for European languages. Philological investigation shows a parallel differentiation in usage for the various root languages. Faculty psychology was largely responsible for the numerous derived terms. At times many related words were used in a "neutral" way. It was Christian philosophy that related "sensual" specifically to the voluptuous, preventing it from following its logical development among similar formations from other roots.—*H. D. Spoerl* (American International College).

3092. **Miotto, A.** *Introduzione alla psicologia della folla.* (An introduction to crowd psychology.) Florence: La Nuova Italia Editrice, 1939.—The author discusses crowd structure, the place of the individual in the crowd, and the phenomenon of suggestion.—*R. Ricci* (Rome).

3093. **Onishi, N.** *Gakkyū shinri no mondai. Chūtō gakkō seito no yūjin kankei. a. Sono genshōteki kenkyū.* (Psychological problems of a school class. The friendship relation in middle-school pupils. a. Its phenomenological study.) *Jap. J. exp. Psychol.*, 1939, 5, 117-131.—*R. Kuroda* (Keijo).

3094. **Rome, R.** A method of predicting the probable disposition of their children by unmarried mothers. *Smith Coll. Stud. soc. Work*, 1940, 10, 167-201.—The Jewish Board of Guardians, New York City, offers to unmarried mothers four alternatives with regard to the disposition of their children. These include financial assistance if needed, foster home, adoption, or supposedly temporary care in the Home for Hebrew Infants for a period up to three years. The last alternative is for those cases in which the mothers are undecided about what to do or cannot put their plans into effect immediately. 30 cases falling under this last category have been analyzed by the author to determine whether or not there were factors differentiating those who finally took their children home from those who eventually gave their children over for adoption or placement. She concludes that when four or more favorable factors (six in all) are present in a case, the child is likely to be finally taken home, while when three or fewer are present some other disposition of him is apt to be made.—*K. S. Yum* (Chicago).

3095. **Schmidt, P.** *Beiträge zur Lehre von der Bedeutungsbildung in den indogermanischen Sprachen.* (Contributions to the theory of meaning-formation in the Indogermanic languages.) *Arch. ges. Psychol.*, 1939, 104, 579-637.—In the development of language, meanings and elaborations of

meanings proceed from "pre-vocal," concrete totalities described as meaning-structures. To these correspond the roots of words. Extensions of meaning occur not as transfers but as recognitions. The doctrine is illustrated by an exhaustive consideration of the roots used to express the basic structures "together" and "bent" in the various Indo-germanic languages.—*H. D. Spoerl* (American International College).

3096. Seashore, C. E. *The psychology of music.* 24. *Measures of musical achievement.* *Music Educators J.*, 1940, 26, No. 4, 24; 78.—Rules are offered for the construction of a sight reading scale: (1) "The measures to be based on widely recognized objectives in musical education." (2) "The content to embody a series of definable and isolable specific factors as basic and fair samples of musical achievement." (3) "The range to be wide enough in a single scale to cover significant levels from the third grade up to and including the high school or adult level." (4) "The test material to be presented in one attractive and comprehensive booklet designed to dovetail with a single record sheet."—*P. R. Farnsworth* (Stanford).

3097. Seashore, C. E. *Why no great women composers?* *Music Educators J.*, 1940, 26, No. 5, 21; 88.—Seashore finds no important sex differences in musical talent, intelligence, musical temperament, creative imagination, musical precocity, or endurance. Education is available to both sexes. The career inhibitions of marriage and the late emancipation of women cannot, it is held, offer the true explanation. Seashore finally decides the matter as follows: "Woman's fundamental urge is to be beautiful, loved and adored as a person; man's urge is to provide and achieve a career." Exceptions are granted.—*P. R. Farnsworth* (Stanford).

3098. Siegel, M. *Population, race and eugenics.* Hamilton, Ont.: Author, 1939. Pp. 206. \$3.00.—Part I stresses positive eugenics, Part 2 negative eugenics. The book is concerned with the effects on population quality of the differential birth rates now operating between the upper and lower cultural groups. Constructive recommendations include: improvement in housing conditions, economic changes to make earlier marriage possible, extension of birth control to the rural and industrial areas, and changing attitudes toward marriage, together with the usually proposed restrictive measures for the hereditary feeble-minded and mentally disordered.—*G. C. Schwesinger* (American Museum of Natural History).

3099. Southwick, W. E. *Selective mating as a factor in socio-economic inferiority.* *Ment. Hyg.*, N. Y., 1939, 23, 620-640.—Of a group of 3296 persons selected in accordance with the single criterion that they be related to an institutionalized person, there has been found a markedly higher incidence of institutionalism than occurs in the general population, and an average socio-economic status that was definitely subnormal. The custom of selective mating has resulted in the mating of inferior with inferior in all these cases. A method

for recording and filing data on an individual is suggested.—*P. Brand* (New York City).

3100. Spranger, E. *Wie erfasst man einen Nationalcharakter?* (How is a national character comprehended?) *Ersziehung*, 1939, 15, 41-62.—The richest portrayal of a people is found in its tragic poetry, and by no other means with the same purity and depth.—*P. L. Krieger* (Leipzig).

3101. Stagner, R. *The cross-out technique as a method in public opinion analysis.* *J. soc. Psychol.*, 1940, 11, 79-90.—A cross-out list of 40 stereotyped ideas relating to social, political, economic, and religious controversies was given to 500 college students and their parents. In addition, attitudes towards current problems were expressed on a 5-point scale, and preferences were given on a paired-comparison list of nouns and adjectives. Results proved to be valid for groups of stated political preference, and showed considerable consistency. The practical merits of the cross-out technique are suggested.—*G. Brighouse* (Occidental).

3102. Stark, W. A. *The effect of bilingualism on general intelligence: an investigation carried out in certain Dublin primary schools.* *Brit. J. educ. Psychol.*, 1940, 10, 78-79.—Abstract.

3103. Stone, N. S. *The college girl and the depression.* *J. educ. Sociol.*, 1940, 13, 336-351.—This is a study of the adjustments of 100 single, unemployed girl college graduates. The data were collected by requesting responses to 67 questions concerning pre-college, college, and post-college attitudes. "The greatest contribution of the college experience to the group, aside from specific education, seems to be increased social adjustment and a feeling of independence and realization of personality." Suggestions made by the girls for alleviating their unemployment included: taking advantage of free lectures and entertainment; general reading lists in the libraries, outlining background reading; Y.M.C.A. and Y.W.C.A. joint recreational programs; study groups for understanding of contemporary affairs; development of hobbies; a barter service of skills; supervised volunteer work; and an efficient vocational bureau for college women.—*D. G. Ryans* (Cooperative Test Service).

3104. Tachibana, K. [The origin of respect for the aged in Japan.] *Jap. J. Psychol.*, 1939, 14, 307-314.—The author studied the aged men and women treated in such old books as Kojiki, Nihon Shoki, and other Japanese mythological stories and traditions, and concluded that respect for the old comes from respect and terror for their potential imprecations.—*R. Kuroda* (Keijo).

3105. Tanaka, K. *Ainu jidō no chinō.* (The intelligence of Ainu children.) *Kybiku Shinri Kenkyū*, 1939, 14, 85-104.—The results obtained with the author's intelligence test B are reported.—*R. Kuroda* (Keijo).

3106. Tasaki, J. *Kazoku to kokka.* (Family and state.) *Kybiku Shinri Kenkyū*, 1939, 14, 454-470.—The relaxation and decline of the family system in Japan has been remarkable since the growth of

western individualistic civilization. The family in Japan keeps, however, its essential spirit in comparison with the western family. The strengthening of the system promises the future prosperity of the country.—*R. Kuroda* (Keijo).

3107. Thorndike, E. L. *Studies in the psychology of language*. *Arch. Psychol.*, N. Y., 1938, No. 231. Pp. 67.—The monograph reports facts concerning: (1) changes in meaning which a word undergoes when its grammatical function changes, as from substantive to verb, verb to substantive, adjective to verb, etc.; (2) the origination, interpretation, and perpetuation of compound words; and (3) the relation of the length of words to the frequency of their use. Little evidence was found that the past hearing and use of thousands of these novel cases gives more than a general readiness to find some verbal meaning, but the material is too scanty for definite assertions. In the writer's opinion the desire for variety in speech is mainly a cultivated want limited mostly to literary people, and plays a small part in the origination and perpetuation of substitutions.—*E. M. Achilles* (New York City).

3108. Ullman, M. K. *Overcoming audience fear*. *Music Educators J.*, 1940, 26, No. 4, 31-32.—The process employed was that of eliminating all known cues for stage fright and then negatively adapting the subjects. Two musicians who suffered greatly from stage fright were first given a different instrument in different surroundings. Later an audience of one was given, and still later informal groups. Confidence was gradually built up until the normal audience situation could be faced.—*P. R. Farnsworth* (Stanford).

3109. Watanabe, T. *Kyōdosei no kenkyū, tokuni Nobutomo to Atsutane to no hikaku*. (Studies on provincial characteristics in mentality, with special reference to a comparison between Nobutomo and Atsutane.) *Kyōiku Shinri Kenkyū*, 1939, 14, 425-448.—*R. Kuroda* (Keijo).

3110. Williamson, R. W. *Essays in Polynesian ethnology*. (Ed. by Ralph Piddington.) New York: Macmillan, 1940. Pp. 415. \$7.00.

3111. Yoda, A. "Sharin no shita" ni aawareta seinen no shinri. (Psychology of youth in Hermann Hesse's *Unterm Rad*.) *Kyōiku Shinri Kenkyū*, 1939, 14, 262-272.—The author discussed the mental processes of the hero of this novel in connection with such items as isolation, friendship, emotional life, eidetic imagery, adoration of death, and love.—*R. Kuroda* (Keijo).

3112. Zeleny, L. D., Dubin, R., & Winch, R. F. *On the sociometry of morale and the measurement of social status*. *Amer. J. Sociol.*, 1940, 45, 771-776.—Dubin criticizes Zeleny's "social-status score" (*Amer. J. Sociol.*, 1940, 45, 576-82) on the basis of its statistical limitations: that the limits of the measure are not independent of the size of the group and that identical "scores" may not represent identical situations. Winch finds in the article a reification of concepts which it is attempted to define operationally. Zeleny replies to the discussions of his paper in

a rejoinder which restates his main thesis: that human interactions can be measured and expressed in terms of mathematical formulas and ratios. The equivalence of the same social-status scores is recognized as problematical and the advisability of using sociograms to accompany the scores is suggested. It is stated that the evidence presented indicates that these formulas measure the degree and intensity of three forms of social interaction, and thus, within defined limits, a mathematical expression of three kinds of social position has been established.—*D. L. Glick* (Brown).

[See also abstracts 2706, 2714, 2732, 2838, 2843, 2871, 2887, 2896, 2900, 2905, 2909, 2911, 2984, 2992, 3000, 3008, 3010, 3047, 3056, 3144, 3179, 3190, 3203, 3206, 3210, 3250, 3265, 3268, 3274, 3278, 3280, 3282, 3289, 3298.]

CRIME AND DELINQUENCY

3113. Angyal, P. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol.*, Roma, 1939, 3, 7-17.—After enumerating several important studies made on the subject, the author says that we must consider crime primarily in the light of the delinquent's personality.—*R. Ricci* (Rome).

3114. Averna, G. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol.*, Roma, 1939, 3, 19-26.—The principal element to be considered in the delinquent's personality is the psychological, but attention must be paid to the accompanying somatic and biological conditions.—*R. Ricci* (Rome).

3115. Balser, B. H. *A behavior problem—runaways*. *Psychiat. Quart.*, 1939, 13, 539-557.—From a study of 89 cases diagnosed as "behavior problem—runaway" the author gives illustrative examples, with discussion of the causes underlying runaway behavior and of the treatment applied.—*R. C. Moore* (Boston Psychopathic Hospital).

3116. Barison, F. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol.*, Roma, 1939, 3, 27-34.—A discussion of the author's proposed plan for studying mental cases.—*R. Ricci* (Rome).

3117. Bauer, H. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol.*, Roma, 1939, 3, 35-37.—The author raises the question as to whether descriptive photography and word portraits, two systems which have been used with profit in the identification of delinquents, might be further extended to cover the study of the delinquent's personality. If this could be done, Bauer recommends that members of a criminology committee drawn from each country be appointed to study the question and to report to the chairman

of the International Society of Criminology for consideration at the next congress.—*R. Ricci* (Rome).

3118. **Bavaro, V.** *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 39-43.*—The author emphasizes the point of view that both the jurist and the judge should have close contact with data furnished by anthropology, psychology, and psychiatry as an aid in understanding the personality of delinquents.—*R. Ricci* (Rome).

3119. **Benon, R.** *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 45-59.*—The paper covers: (1) the report of Chaumié in 1905, its text, new aspects, and characteristics; (2) mental anomalies, including (a) intelligence: mental weakness, lying and mythomania, paranoia, schizophrenia, and amnesia; (b) emotivity: enervation, anxiety, timidity, chagrin, passional states, hysteria, cyclothymia, impulsions, sexual perversions, etc.; and (c) activity states: asthenia, apathy, alternations of excitation and depression, and instability; (3) secondary circumstances and other factors, including alcoholism and other forms of intoxication, syphilis and other diseases, delusional episodes, epilepsy, heredity, education, and environment; and (4) general considerations, including the relation of anomalies and mental diseases, mental anomalies and perversity-recidivism, and probable error.—*R. Ricci* (Rome).

3120. **Bithorn, —.** *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 61-67.*—The author views the criminal as a part of the collective personality of the people.—*R. Ricci* (Rome).

3121. **Boschi, G.** *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 69-71.*—A complete study of the criminal personality should avoid the perils of conventionalism and should adopt as a moral concept, as the basic idea of criminality, the infraction of man's social obligation.—*R. Ricci* (Rome).

3122. **Boven, W.** *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 73-78.*—Boven examines the theories of Lombroso (the doctrine of the born criminal) and of Di Tullio (the doctrine of delinquent constitution as divided into five types based on the prevalence of body signs, mental signs, mixed, etc.). He concludes that the important thing to be considered is a study and an appreciation of the degree of malignity as found in any given individual, an appreciation which should

be based not on typological measurements but entirely on individual analysis.—*R. Ricci* (Rome).

3123. **Calojanni, A.** *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 85.*—The criminal personality is an individual matter, and care should be taken in trying to group criminal characteristics. Special institutions should be created for the care of incorrigible cases, and separate institutions should be founded for those not entirely incorrigible. Norms to determine the degree of incorrigibility should be set up, and on the findings of a group of experts in psychology, anthropology, biotypology, and specialized law, a penal judge and a tribunal composed of specially trained officers should make their decisions. Suitable penalties could then be imposed to bring about amelioration of the situation.—*R. Ricci* (Rome).

3124. **Calzia, M.** *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 87-94.*—The author recommends the following proposals: consideration of the responsibility of the delinquent subject, a linking of the penalty to be imposed with the educational functions, a determination of varying degrees of segregation, the remission of punishment which does not make for moral regeneration, and the institution of farm and industrial colonies for the majority of prisoners.—*R. Ricci* (Rome).

3125. **Cassinelli, B.** *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 95-106.*—Consideration of the anthroposociological problem instead of the moral problem should be the keystone of efficacious action by the state when dealing with criminality. Modern criminology has an answer for every psychological or moral exigency.—*R. Ricci* (Rome).

3126. **Colucci, C.** *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 107-113.*—The diagnosis and etiology of the juvenile criminal are considered with respect to the fundamental conditions underlying the evolving age period.—*R. Ricci* (Rome).

3127. **Corberi, G.** *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 115-131.*—Corberi bases his observations concerning the delinquent's personality on results from a group of examinations (a preliminary selective examination, and then an orientative, an anthropological, and a psychological examination). The degrees of intelligence, will, and character of the criminal are also determined.—*R. Ricci* (Rome).

3128. Cornejo, L. G., & Mazeira, C. A. **Educabilidad difícil y delincuencia en Arequipa.** (Difficult educability and delinquency in Arequipa.) Arequipa: Tipografía Cuadros, 1938. Pp. 438.—The book is a scientific investigation of the problem of juvenile delinquency. All biological and social factors that may contribute to delinquency are studied and analyzed for special selective factors.—*J. E. Bader* (Letchworth Village).

3129. Cremona, G. **Relazione sul tema II: "Lo studio della personalità del delinquente."** (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 133-143.—Cremona's research has been devoted to a study of the presence of a distinct misdemeanor tendency and to a study of the personality of the delinquent in its morphological, functional, and psychological entirety. Attention has also been paid to the delinquent's behavior toward his family, society, and the prison.—*R. Ricci* (Rome).

3130. Cualla, U. **Relazione sul tema II: "Lo studio della personalità del delinquente."** (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 145-147.—Study of the delinquent's personality should not be confined to any one school of thought or to any one line of attack. Research should include the fields of anthropology, physiology, biology, psychology, and psychiatry.—*R. Ricci* (Rome).

3131. Del Greco, F. **Relazione sul tema II: "Lo studio della personalità del delinquente."** (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 149-158.—Del Greco covers the following points: (1) intuition as a fundamental guide in a psychological study of criminals; (2) the family of mentally degenerate criminals; (3) the lack of feeling in legal coercion; and (4) questions of method in criminal psychology.—*R. Ricci* (Rome).

3132. De Pinna, L. **Relazione sul tema II: "Lo studio della personalità del delinquente."** (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 165-191.—De Pinna believes that first of all a classification of delinquents must be determined in order to arrange for suitable education and care. The following classification has been adopted by the Portuguese authorities in their prison reforms: (1) criminal through tendency, (2) psychologically abnormal cases, and (3) the accidental and the habitual criminals. He also discusses the record form which he has elaborated, now in use in criminological institutions in his country.—*R. Ricci* (Rome).

3133. D'Oliveira, A. **Relazione sul tema II: "Lo studio della personalità del delinquente."** (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 193-204.—An account of prison reforms in Portugal as related to the delinquent's personality.—*R. Ricci* (Rome).

3134. Dondina, M. **Relazione sul tema II: "Lo studio della personalità del delinquente."** (Report

on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 205-207.—Accompanying the judicial examination of the criminal should be an examination especially devoted to a study of his personality.—*R. Ricci* (Rome).

3135. Dra, K. **In welchem Alter sollen kriminelle Kinder und Jugendliche erziehlichen Massnahmen zugeführt werden und welchen erfolgsprognostischen Wert hat diese Tatsache?** (At what age should criminal children and youths be given educational measurements, and what prognostic value for future success has this procedure?) *Z. Kinderforsch.*, 1939, 48, 190-192.—When the later careers of 483 individuals who had been given clinical advice and treatment in childhood were examined, no relationship between the extent and character of adult misdemeanors and age at the time of clinical study and advice was found. Ages at the time of first study varied from 8 to 18 years; at the time of the follow-up the great majority of the cases were between 24 and 26 years of age. Regardless of initial age, in about 40% of the group there was no record of further criminal offense; about 48% had criminal records of the same general character as the juvenile offenses leading to the original clinical study, and approximately 12% had records of minor offenses only.—*F. L. Goodenough* (Minnesota).

3136. Drapkin, I. **Relazione sul tema II: "Lo studio della personalità del delinquente."** (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 209-213.—An account is given of the examination of criminals in the National Institute of Classification and Criminology of Chile.—*R. Ricci* (Rome).

3137. Eliasberg, W. **The new theory of the perpetrator and the duties of the psychiatric expert.** *J. crim. Law Criminol.*, 1930, 30, 498-510.—Criminological positivism aims to ascertain the ontogenetic motivation for a given criminal deed. Actions of different human beings will not be similar unless the individual motivations are similar. Social milieu (disease, poverty, economic depressions, social background, etc.) are not of themselves causative agents except in so far as the individual's own predisposing motivation makes him susceptible to appropriate external influences.—*L. Ackerson* (Chicago, Ill.).

3138. Ferraro, A. **Relazione sul tema II: "Lo studio della personalità del delinquente."** (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 215-229.—The object of this report is to summarize the content of different doctrines on criminal personality, to give a logical and scientific examination of the material, to determine the differential characteristics, and to point out the importance and the main elements in the data, with the end in view of arriving at scientific conclusions.—*R. Ricci* (Rome).

3139. Finke, H. **Relazione sul tema II: "Lo studio della personalità del delinquente."** (Report

on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 242-257.—The following topics are discussed: the recognition of the criminal personality as a limitation in the treatment of criminals; the principles and limits of investigation in such treatment; and scientific methods.—*R. Ricci* (Rome).

3140. Frassetto, F. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 259-268.—The author reports on a methodology dealing with diagnosis and evaluation of morphological and metric characteristics in the study of delinquent personality (codex anthropologicus).—*R. Ricci* (Rome).

3141. Friedlander, W. *Correctional education in Germany.* *Soc. Serv. Rev.*, 1939, 13, 200-220.—This study traces the development of social and legal attitudes toward delinquent and problem children in Germany from 1478 to the present. The National Child Welfare Law of 1922 provided the first national basis for committing children to correctional institutions. Commitment might be voluntary or through guardianship courts. Prior to the National Socialist regime, institutions ranged from prison-like, conservative schools to very progressive and liberal institutions. The present government has reintroduced the use of corporal punishment, denied the child's right of appeal from disciplinary measures. The child is subordinate to the national policy, and treatment is directed toward cooperation in the National Socialist system. "Hereditary sick" children are sterilized, problem and mentally deficient children are committed to insane asylums. "Compulsory labor service" and army training may continue the discipline of the boy for four or five years following the training school. Probation is difficult because of large case loads and is discouraged by the government.—*G. S. Speer* (Child Guidance Service, Springfield, Ill.).

3142. Galdo, L. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 269-282.—Galdo studies the problem of criminality in relation to characterology and gives an illustrative case of abnormal character.—*R. Ricci* (Rome).

3143. Galli, L. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 283-291.—Galli reports on the Rocco code, attention being given particularly to danger from the criminal insane and from those temporarily insane.—*R. Ricci* (Rome).

3144. Garcia, S. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 293-294.—Crime is discussed from the racial point of view.—*R. Ricci* (Rome).

3145. Givanovitch, T. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 295-298.—A discussion of the preliminary methods to be used in a study of criminal personality.—*R. Ricci* (Rome).

3146. Gökay, F. K. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 293-313.—A study of criminology from the social and psychiatric points of view in Turkey.—*R. Ricci* (Rome).

3147. Gozzano, M. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 315-319.—A discussion of the use of the Rorschach psychodiagnostic method in the study of the delinquent personality.—*R. Ricci* (Rome).

3148. Henry, G. W., & Gross, A. A. *Social factors in delinquency.* *Ment. Hyg., N. Y.*, 1940, 24, 59-78.—Many studies have been made of criminals indicating that they are a species apart, or that they are physically recognizable; these have been disproven. Case histories of 8 boys indicate that they are really serious social problems. To study the history of a crime and the individual who commits it, the problems of the offender himself, his personality, his immediate background and its surroundings, the social and economic order of which he is a part, and the interplay of these forces must be carefully taken into consideration. The cause of crime is a combination of these factors; no one of them alone can be considered the cause. The social conscience awakened may rouse an interest in the cause and cure of crime.—*P. Brand* (New York City).

3149. Hirsch, G. M. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 321-323.—The determination of the degree of masculinity and femininity in delinquents.—*R. Ricci* (Rome).

3150. Kernbach, M. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 337-345.—From the beginning of study on criminals there have been two problems of a preeminently practical order: (1) a knowledge of the internal and external criminogenic factors, with a view to a realization of criminal therapy dealing with the environmental origin of the crime, and (2) a knowledge of the psychophysical personality of the criminal, with a view to an application of educational regimes conformable to this personality. But information about the criminal individual can be determined only in relation to the non-criminal individual. The author believes that once for all

the psychosocial function of the human personality must be defined. In a study of criminal personality, impulsions and emotions will form the basis of practical consideration, in that they belong to the most innate processes of the criminal dynamic self.—*R. Ricci* (Rome).

3151. Korzeniowski, L. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 347-359.*—The author discusses the divergence of opinion of jurisprudence and medicine on law violation. He recommends two codes: one for transgressors who are capable of reformation (a code of moral prevention), and one for those who cannot be reformed (a code of special or particularized prevention).—*R. Ricci* (Rome).

3152. Lane, W. D. *What makes crime?* New York: Public Affairs Committee, 1939. Pp. 31. \$0.10.

3153. Lehrman, P. *Some unconscious determinants in homicide.* *Psychiat. Quart., 1939, 13, 605-621.*—Considering the murderous act as the dramatic event in a psychological sequence, the author utilizes the concepts of psychoanalysis in a discussion of two cases of psychotic murderers. He traces the unconscious determinants underlying the murders, and stresses the oral significance of the acts and their significance as partial suicide.—*R. C. Moore* (Boston Psychopathic Hospital).

3154. Lenz, A. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 363-371.*—The author suggests that a systematic synthesis be made of all methods hitherto proposed in the literature and practiced. He also proposes the compilation of a general table which would present all criminal characteristics.—*R. Ricci* (Rome).

3155. Lombardi, G. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 395-437.*—A discussion is given of the following subjects: (1) the inadequacy of the anthropological theory; (2) the mixture of races and criminality, and the historical races; (3) atavistic historic-social customs, and the persistence of primitive instincts; (4) contemporary social customs; (5) classification of criminality; (6) will and the delinquency motif; and (7) the question of delinquency constitution, atavism, and social customs.—*R. Ricci* (Rome).

3156. Maccariello, G. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 439-454.*—A discussion of preliminary factors in delinquent personality, the divisions of the subject, the legislator, the judge, the culprit, the importance of the study of individual personality during the period of prison sentence, method of study, and the end in view.—*R. Ricci* (Rome).

3157. Madia, V. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 455-466.*—The author discusses the following methods: anthropological, biological, psychological, sociological, biotypological, and constitutionalistic.—*R. Ricci* (Rome).

3158. Malfitano, C. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 467-473.*—The personality of the delinquent should be studied in all its complexity. To illustrate his meaning, Malfitano presents three case studies which had been given complete clinical examinations.—*R. Ricci* (Rome).

3159. Manassero, A. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3, 475-481.*—The author emphasizes the need of a complete and precise classification of delinquents, which should be based on scientific postulates obtained from anthropology, criminal sociology, psychology, and legal medicine.—*R. Ricci* (Rome).

3160. Marguglio, D. *La nuova antropologia criminale. Aspetti biologici, sociali, giudiziari.* (Present-day criminal anthropology; biological, social, and judiciary aspects.) Palermo: Salpietra, 1939. Pp. 120. L. 15.—The book consists of a course of lectures delivered by the author in 1938-1939 before officers of the court of appeal in Palermo, his recommendations being addressed both to biologists and to jurists. The present-day tasks of criminal anthropology include a need for careful study of the biological factors concerned in crime and an examination of the delinquent in accordance with the biotypological objectives of Pende and the criminal-constitution ideas of Di Tullio. The personality of the criminal should be examined with as much care by a biologist as the crime itself has hitherto been examined by the jurist, for only on such data can the judge achieve humanitarian justice and decide upon truly corrective measures. In the light of these ideas the following problems should be considered: study of the personality of criminals, causal research, therapy and prophylaxis, the political criminal, and judicial application of information on criminal personality. Marguglio concludes by giving an extensive development of the problem of criminality in minors, viewing the biological, social, and remedial aspects of the subject.—*R. Ricci* (Rome).

3161. Matsumoto, K. *Hanzai shōnen no shakai-teki yogo.* (The social prognosis of criminal juveniles.) *Kybiku Shinri Kenkyū, 1939, 14, 829-841; 909-920.*—100 social prognoses of juvenile delinquents are presented and Schiedt's bad-point method is examined. Those for which the method is applicable are: the first offense before 13 years of age, more than 5 criminal acts, previous repeated offense,

offense against blood relation, previous bad environment, bad environment after discharge, change of employment more than 5 times, abnormal character, or mental deficiency diagnosed by the psychological-medical method.—*R. Kuroda* (Keijo).

3162. *Mennato, M.* Relazione sul tema II: "Lo studio della personalità del delinquente." (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 159-164.—Mennato believes that the study of criminals should be mainly clinical, and that the examiner should analyze the individual criminal from both the somatic and the psychological points of view.—*R. Ricci* (Rome).

3163. *Montesano, G.* L'insegnamento dell'antropologia criminale. (The teaching of criminal anthropology.) *Nuova Riv. Clin. Assist. psich.*, 1938, No. 2.—The author favors the establishment of independent university courses in criminal anthropology, and reviews the history of the subject in Italy with special emphasis on the work done in Naples. Because of the demands for therapeutic treatment of criminals, instruction should include contributions from the fields of psychiatry, hygiene, biological psychology, experimental psychology, and pedagogy.—*R. Ricci* (Rome).

3164. *Neureither, F. v.* Körperbau und Verbrechen als kriminalbiologisches Problem. (Physique and crime as a criminological problem.) *Wien. med. Wschr.*, 1940, 90, 5-6.—Although the typing of criminals by Kretschmer and his pupils has not been very profitable, his system is best suited to criminal biology. The Italians Pende and Di Tullio have sought without results to make endocrine glands the basic factor. Blood grouping likewise plays no part.—*P. L. Krieger* (Leipzig).

3165. *Palopoli, N.* Relazione sul tema II: "Lo studio della personalità del delinquente." (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 505-551.—The author discusses the following subjects: (1) the personality of the delinquent under the Italian penal code: (a) concepts of "criminal personality," "imputability," "responsibility," and "penal"; (b) the deterministic concept based on imputability; and (c) the concept of imputability under the new code; criticism; and (2) the personality of the delinquent under a positivistic integral concept: (a) the positivistic integral concept of the personality of the delinquent (imputability and imputation); (b) the naturalistic-law concept of delinquency from the anthropological, sociological, and judicial points of view; and (c) integral positivistic reform.—*R. Ricci* (Rome).

3166. *Patini, E.* Relazione sul tema II: "Lo studio della personalità del delinquente." (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 553-569.—The biological method should be used in the study of delinquent personality.—*R. Ricci* (Rome).

3167. *Patini, E.* Relazione sul tema II: "Lo studio della personalità del delinquente." (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 571-576.—The author asks whether one should use "moral tests" or, preferably, continued observation in cases of abnormal, erring, or delinquent children, or children showing a tendency toward delinquency.—*R. Ricci* (Rome).

3168. *Picone, C. C.* Relazione sul tema II: "Lo studio della personalità del delinquente." (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 577-586.—The suggestion is made that a new theory should be developed dealing with the concept that the penalty be the sole means of combating crime.—*R. Ricci* (Rome).

3169. *Puca, A.* Relazione sul tema II: "Lo studio della personalità del delinquente." (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 587-595.—The author studied the importance of the endocrine factors in the personality of the delinquent, and concludes that not even endocrinology is able to furnish the necessary deterministic and unchangeable factor in a biological concept of crime.—*R. Ricci* (Rome).

3170. *Riedel, H.* Relazione sul tema II: "Lo studio della personalità del delinquente." (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 597-612.—A discussion of the psychopath as a disturber of the social order.—*R. Ricci* (Rome).

3171. *Santucci, G.* Relazione sul tema II: "Lo studio della personalità del delinquente." (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 613-631.—The following topics are discussed: the causes of crime, a panorama of criminology, crime and the effect of the penalty, cognition and individualization of psychological factors (will, personality, and the psychological tendency toward crime), the task of the jurists and the penologists, an evaluation of responsibility and of social anti-normality, tendency toward crime, method of removing this tendency, and the importance of the tendency factor in a study of the criminal personality.—*R. Ricci* (Rome).

3172. *Schneider, K.* Relazione sul tema II: "Lo studio della personalità del delinquente." (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 671-679.—The author reports a comprehensive and explanatory study of criminals which he has made.—*R. Ricci* (Rome).

3173. *Selling, L. S.* Relazione sul tema II: "Lo studio della personalità del delinquente." (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 675-683.—The author reports on investigation methods in clinical criminology which have developed recently in addition to earlier methods of

psychiatric interview, psychological tests, and case histories: (1) a combination of the autobiographical method with formal interviews and case histories; (2) evaluation of the emotional attitudes by means of a combination of results from the Rorschach inkblots and polygraph measures; (3) the use of a battery of standardized tests in the hands of a trained psychologist; and (4) a complete knitting together of all the other facts by means of a free form of unconventional psychiatric interview.—*R. Ricci* (Rome).

3174. Stumpfi, F. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 685-699.—A discussion of criminal morality in children, the necessity for discipline, the crossing of races, prostitution, and homosexuality.—*R. Ricci* (Rome).

3175. Thompson, C. B. *The effects of incarceration on the adult criminal as observed in a psychiatric court clinic.* *Ment. Hyg., N. Y., 1940, 24*, 50-58.—The Psychiatric Clinic of the Court of General Sessions sifts out the psychotic and mentally defective individual, studies all other individuals to assist in disposition of cases, maintains a follow-up adjustment service, and makes studies of certain major problems in criminological psychiatry. Nearly all prisoners are affected adversely by the usual harsh and contemptuous initial treatment upon arrest, enforced inactivity (especially in first offenders), and "inconsistency and injustice of the processes of the law." First offenders, especially those arrested for so-called "accidental offense," are shocked by imprisonment. Many men develop abnormally reactive states. Old offenders frequently have symptoms of mild depression. Younger prisoners are often pleased by the attention received from the time of arrest to the time of sentence, and are stimulated to commit further crimes to satisfy their desire for attention.—*P. Brand* (New York City).

3176. Timashoff, N. S. *The treatment of persistent offenders outside the United States.* *J. crim. Law Criminol., 1939, 30*, 455-469.—During the past 15 years statutes providing for specialized penal treatment for persistent criminal offenders have become almost universal throughout all countries. The usual treatment provided in these statutes is for segregation from society for an indeterminate period until the prisoner is considered no longer to be a social danger.—*L. Ackerson* (Chicago, Ill.).

3177. Vervaeck, L. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 725-729.—The author discusses the possibility of founding on a more solid basis a theory which would be definitive of the state of criminality. Discussion is devoted to the various concepts of this subject. He believes that if too many objections are raised to

the theory of the criminal-born individual, we can substitute the delinquent-constitution theory, which has been elaborated and defended by Di Tullio and which takes into account modern psychopathological concepts. An international study of the delinquent personality would greatly aid in solving the problem of genesis and etiology of crime and of delinquents.—*R. Ricci* (Rome).

3178. Viola, D. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 731-738.—Criminal personality should be studied in relation to an evaluation of psychophysical factors as found in the human organism. Study should be directed to three main phases: before, during, and after the crime. Three elements determine the crime: the criminogenic factor, the delinquent constitution, and the crime environment.—*R. Ricci* (Rome).

3179. Wiers, P. *"Can rural and urban delinquency be compared?"* *J. crim. Law Criminol., 1939, 30*, 522-533.—The validity of comparisons between court delinquency rates for urban and rural county groups has been previously questioned because (1) court records are not sufficiently inclusive, since some communities stress non-court agencies which care for delinquents without referring them to a court, and (2) acts of delinquency in urban areas are qualitatively different from those in rural areas. From a comparison of tables based upon urban and rural county groups in Michigan during the three-year period 1934 to 1937, the author concludes that there is considerable similarity between the two groups in court treatment and in the nature of delinquency problems. Delinquency rates are lower in rural areas.—*L. Ackerson* (Chicago, Ill.).

3180. Williams, H. M. *Intelligence and delinquency.* *Yearb. nat. Soc. Stud. Educ., 1940, 39* (I), 291-297.—Generally speaking, because data are insufficient and hypotheses inadequate, no causal relationship between delinquency and low intelligence can be demonstrated. "A more reasonable interpretation of the results from mass data is that samplings from inferior groups show a higher incidence of both delinquency and low intelligence."—*P. S. de Q. Cabot* (Simmons).

3181. Yoshida, S. [The types of character in delinquent boys and their dynamic peculiarity.] *Jap. J. Psychol., 1939, 14*, 408-430.—A proper method of investigating delinquent children and their character types is followed by an experimental research concerning dynamic peculiarities of types from the standpoint of Lewin's level of aspiration.—*R. Kuroda* (Keijo).

3182. Zerboglio, A. *Relazione sul tema II: "Lo studio della personalità del delinquente."* (Report on topic II: Studies on the personality of the delinquent.) *Atti I. Congr. int. Criminol., Roma, 1939, 3*, 769-772.—The author suggests that a study of criminality be made on delinquents who have been shown to be morally abnormal; that a psychological

functional examination always be given; and that an evaluation be made in every case of the crime environment and hereditary antecedents.—*R. Ricci* (Rome).

[See also abstracts 2956, 3012, 3032, 3057, 3276.]

INDUSTRIAL AND PERSONNEL PROBLEMS

3183. [Anon.] The selection of captains in the New York City Department of Correction: promotion test analysis. *Publ. Person. Quart.*, N. Y., 1939, 1, 1-33.—Preliminary tryout of test items is impractical in many civil service examination procedures because of the necessity for secrecy of test material. In accordance with such restrictions a test was given 240 applicants for promotion from correction officer to captain in the New York City Department of Correction. The test was composed of 40 brief-answer essay items concerning information about criminal law and departmental regulations; these were preferred to the more usual choice and completion types of items, because of their assumed higher relationship with administrative and supervisory abilities. The odd-even reliability coefficient was .92; the standard error of measurement was 3.30, out of a total possible range of 80 points; correlations between scoring of two judges, which are termed "objectivity coefficients," were .93 for total scores, and ranged from .49 to .96 for single items; selectivity coefficients, indicating correlations between score for each item and total score, ranged from .21 to .98. Discussions of the influence of public opinion upon examination procedures and possible methods of increasing effectiveness of examinations are included.—*J. S. Calvin* (Cincinnati, Ohio).

3184. Carter, J. W., Jr. Manual for the psychodiagnostic blank. *Psychol. Rec.*, 1940, 3, 250-290.—A description of a manual to be used for clinic and classroom where the psychodiagnostic blank devised at Indiana University is used as a guide for diagnostic interviewing. The blank and the manual are based on the conception that interviewing is basic to psychoclinical investigation. Space is provided for grouping data into sections covering the following areas: identification of case, diagnostic summary, complaint history, developmental history, parents and family, psychometric data, agency contacts, and follow-up record.—*P. S. de Q. Cabot* (Simmons).

3185. Lahy, J. M. Tests de vision pour conducteurs d'automobiles: vision nocturne. Eblouissement et champ du regard pratique. (Visual tests for automobiles: night vision, glare, and field of vision.) *Travail hum.*, 1939, 7, 353-400.—The technique for night vision includes the broken circle and other test objects, with elaborate control of illumination. Glare is measured by recognition of numbers on a field from which much light is reflected directly to the eye. Field of vision is measured by a reaction task to letters which appear at the fixation point while the subject reacts to points of light appearing at left or right without

warning. Ogive curves present the norms.—*H. E. Burtt* (Ohio State).

3186. Marshall, G. S. Physiological problems of human flight. *Brit. med. J.*, 1940, Part I, 226-227.—*W. J. Brogden* (Wisconsin).

3187. Pine, H. E. Patient control: applied psychology for the optometrist. Chicago: Professional Press, 1939. Pp. 64. \$1.00.

3188. Watanabe, T. Shitai-fujiyūsha ni taisuru sagyō setsubi kaizen no ichirei. (An example of the improvement of work equipment for the cripple.) *Kyōiku Shinri Kenkyū*, 1939, 14, 591-598.—The author devised a treadle machine for ticket punching for the use of wounded soldiers.—*R. Kuroda* (Keijo).

[See also abstracts 2960, 3004, 3009.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

3189. Babitz, M., & Keys, N. An experiment in teaching pupils to apply scientific principles. *Sci. Educ.*, 1939, 23, 367-370.—Such ability may be improved in high school chemistry classes, with suitable teaching procedures.—(Courtesy *J. educ. Res.*).

3190. Bear, R. M., & Imus, H. A. Changes in reading performance during the freshman year of college. *J. educ. Psychol.*, 1939, 30, 667-673.—Analysis of average changes of 383 subjects in comprehension and rate of reading taking place during an academic year indicated that only the gains in comprehension were statistically reliable. Reading performance was measured by forms A and B of the Iowa silent reading test.—*R. M. Bellows* (Maryland).

3191. Bird, G. E. The effect of nursery-school attendance upon mental growth of children. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 81-84.—54 children ranging in CA from 3½ years to 6 years 10 months (median 4 years 8 months) at the time of entering the pre-school class attended nursery school from 4 to 59 weeks. The Stanford-Binet test (unrevised) was given within the first month or in the month following attendance. Generally "the effect of a year's training in a superior school environment upon the intelligence quotients of these children appears to have been negligible." Children from superior and inferior homes maintained their initial differences. After a year's interval the correlation between initial and final tests was .84.—*P. S. de Q. Cabot* (Simmons).

3192. Bottai, G. L'università nella Carta della Scuola. (The university in the plan of education.) *Ann. Univ. Ital.*, 1939, 1, 7-11.—The problem is viewed by the author from the standpoint of professional orientation.—*R. Ricci* (Rome).

3193. Carrier, B. Discipline or mental hygiene. *Educ. Trends*, 1939, 7, May-June, 29-32.—A discussion of the relationship of school discipline to mental hygiene. "When we place our concern on preparing the child and the group for more adequate judgments, motives and behavior, when we see with

Dewey that 'morals lie in the future,' we shall be able to harmonize discipline and mental hygiene."—*P. A. Witty* (Northwestern).

3194. Cast, B. M. D. *The efficiency of different methods of marking English compositions. Part I.* *Brit. J. educ. Psychol.*, 1939, 9, 257-269.—40 compositions from central-school girls aged 14½ to 15½ were marked at 8-week intervals by four different methods: (1) the examiners' individually chosen methods, (2) according to the extent to which the writer seems to have met his objective of instructing, persuading, or entertaining the reader, (3) by general impression, and (4) by analysis of the mechanical, literary, and logical aspects of the composition. The greatest variations in standards appear in the first two methods. For a single composition the analytical method gives the least variation in marking. Analyzed in terms of variances, the analytic method differentiates best between candidates and also produces the least random fluctuation.—*K. M. Cowdery* (Stanford).

3195. Cohler, M. J. *Some educational implications of the "changing IQ."* *Educ. Meth.*, 1939, 19, 113-117.—(*Educ. Abstr.* V: 268).

3196. Cole, S. G. *Where religious education and theology meet.* *Relig. Educ.*, 1940, 35, 18-25.—The religious educator views man from the point of view of personality, as a result of biological and social evolution, and as an individual capable of enriching his life. The theologian views man in terms of sin, salvation, grace, etc. The two views conflict on the issues of a naturalistic conception of man versus a transcendental conception, the conception that man can rise morally versus the inherent sinfulness of human nature, the conception of Jesus as an example of the principle of love as a way of living versus Jesus in the role of Divine Savior, and finally the view that the church is being tested to judge its place in human economy versus the church as God's divinely appointed agent to redeem man.—*F. A. Mote, Jr.* (Brown).

3197. Davis, W. M. *A science test designed to teach and measure outcomes other than memorization of factual information.* *Sci. Educ.*, 1939, 23, 371-372.—The test is designed for use with eighth and ninth grade science classes in teaching and measuring ability to detect superstitions and scientific inaccuracies.—(Courtesy *J. educ. Res.*).

3198. Dent, E. C. *The audio-visual handbook.* (3rd ed.) Chicago: Society for Visual Education, 100 E. Ohio St., 1939. Pp. 211. \$1.50.

3199. Detchen, L. *Shall the student rate the professor?* *J. higher Educ.*, 1940, 11, 146-153.—Reporting on an experience in the College at the University of Louisville and substantiating her analysis by reports from the literature representing a large number of institutions, the author presents positive and negative sides of the student rating discussion. The students' rating of teachers is "the more important, for the very reason that it is more complete and personal." The negative argument that the material cannot be validated by the

opinion of experts, standardized test results, or alumni ratings merely means that the material stands "neither validated nor invalidated." The "halo effect" and "positive skewed effects" are considered. The use by the administration of the results obtained is discussed in some detail. The experience at Louisville and the survey of related studies suggest the necessity of improvement of degree of discrimination on the scale, the use of traits which correlate more highly, the elimination of vague personality traits, the use of concrete suggestions for improvement when the material is presented to the individual professor, and the use of variability measures in reporting average ratings.—*R. A. Brotemarkle* (Pennsylvania).

3200. DuBois, P. H. *Achievement ratios of college students.* *J. educ. Psychol.*, 1939, 30, 699-702.—Analysis by means of achievement ratios shows that the superior group accomplishes considerably less in proportion to its ability than the inferior group. Accomplishment as measured by the achievement ratio decreases fairly regularly as scholastic aptitude increases.—*R. M. Bellows* (Maryland).

3201. Feder, D. D. *Factors which affect achievement and its prediction at the college level.* *J. Amer. Ass. colleg. Registr.*, 1940, 15, 107-118.—(*Educ. Abstr.* V: 292).

3202. Frandsen, A., & Barlow, F. P. *Influence of the nursery school on mental growth.* *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 143-148.—An experimental group of 30 children aged 2 to 5 years were initially and finally tested with the Stanford-Binet after a median interval of 5.5 months of nursery-school training. The group was approximately equated with a control series of 28 children in regard to sex, age, socio-economic status, and extent of home training. Although the experimental group in the special nursery-school environment gained 3.34 IQ points compared with a gain of 0.53 point for the controls, the gain "appears very small when compared with the whole range of individual differences in IQ resulting from both hereditary and environmental causes."—*P. S. de Q. Cabot* (Simmons).

3203. Garver, F. M., & Matthews, R. D. *An analysis of the results of speed drills with the Metron-O-Scope to increase reading rate.* *J. educ. Psychol.*, 1939, 30, 693-698.—Students of the slowest sections of the 7th, 8th, and 9th grades were given drills with the Metron-O-Scope for two periods of 15 minutes each per week. This training covered 10 weeks. The 7th graders raised their average rate of reading from below 5th grade level to about 9th grade level. Other sections increased in reading rate proportionately. Whereas a control group increased 19 words per minute, the experimental group increased 90 words. Number of fixations and regressions as recorded by the Ophthalmograph decreased. Comprehension was not decreased.—*R. M. Bellows* (Maryland).

3204. Gatti, E. *Le valutazioni scolastiche nell'ambito dell'orientamento professionale.* (Evalu-

tion of schools from the point of view of vocational guidance.) *Instruz. tecn.*, 1939, 2, No. 5.—The author discusses the need for an evaluation of the degree of learning activity and scholastic achievement in instruction which has concrete ends in view, and advocates a unification of teaching techniques in technical schools.—*R. Ricci* (Rome).

3205. **Gemelli, A.** Il problema degli esami di profitto e di laurea nelle università. (The problem of examinations for proficiency and for the doctorate in the universities.) *Ann. Univ. Ital.*, 1939, 1, 48-59.—The problem is viewed from the standpoint of professional orientation.—*R. Ricci* (Rome).

3206. **Gilliland, A. R.** The attitude of college students toward God and the church. *J. soc. Psychol.*, 1940, 11, 11-18.—Thurstone attitude scales filled out by students at three large universities and at three denominational colleges indicated that few students are atheistic; that there is little sex difference in religious attitudes; that there is little change in attitude during the four years of college; and that denominational college students have a more favorable attitude by about three-fourths of a sigma than do university students.—*G. Brighouse* (Occidental).

3207. **Goodenough, F. L., & Maurer, K. M.** The mental development of nursery-school children compared with that of non-nursery-school children. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 161-178.—Data were supplied from the intelligence test records of 147 children attending nursery school a duration of 40 to 575 days and of 260 children who had no nursery-school training. None of several analyses of the data indicated that attendance at nursery school had any measurable effect upon the mental development of the children. The authors do not offer any satisfactory explanations for the discrepancies between the general finding and the results of the Iowa researches.—*P. S. de Q. Cabot* (Simmons).

3208. **Goto, I.** Gakugyō seiseki fushinji ni kansuru nisan no mondai. (Some problems concerning retarded school children.) *Kyōiku Shinri Kenkyū*, 1939, 14, 356-369.—Causes of retardation in school subjects were listed for 45 cases treated at Tokyo Bunrika University. They are: frequent changes of environment, bodily inferiority or defect of sense organs, a genetic factor, symptoms retained from early illness, lack of seriousness, and parents' attitudes toward education.—*R. Kuroda* (Keijo).

3209. **Gray, J. L., & Moshinsky, P.** Ability and opportunity in English education. In Hogben, L. [Ed.], *Political arithmetic: a symposium of population studies*. London: Allen & Unwin, 1939. Chapter VIII.—As a chapter in a symposium of population studies results are reported from administration of Otis group tests to over 10,000 children in London schools of varying types. For children of equally high ability seven fee-paying pupils will receive a higher education for every free pupil. Of those who fall below a selected level of ability, for every free pupil afforded the opportunity of a higher education

there are 162 fee-paying pupils who enjoy the same advantages. Test scores in relation to parental occupation are also discussed.—*K. M. Cowdery* (Stanford).

3210. **Gray, W. S.** Summary of reading investigations. (July 1, 1938, to June 30, 1939.) *J. educ. Res.*, 1940, 33, 481-523.—A summary of reading problems published during the year, classified according to such topics as reading readiness, phonetics in learning to read, reading vocabularies, relations of intelligence to basic factors in reading, reading interests, remedial reading, and reading tests. Bibliography with abstract of 126 titles.—*S. W. Fernberger* (Pennsylvania).

3211. **Heinemann, E.** Das erste Schuljahr in der Erinnerung des Erwachsenen. (Adults' recollections of their first year of school.) *Z. Kinderforsch.*, 1939, 48, 22-71.—A total of 250 adults, chiefly university students and faculty members ranging in age from 15 to 80 years, filled out a questionnaire asking for recollections of their first year at school. Of the various matters recalled, being given sweets (on their first day at school) was the thing most frequently mentioned. Recollections of the teacher ranked next in frequency, followed in order by memories of classmates and of the schoolroom.—*F. L. Goodenough* (Minnesota).

3212. **Held, L. C.** Genetics, psychology and character education. *Character & Citizenship*, 1939, 5, 30-33.—(*Educ. Abstr.* IV: 581).

3213. **Hymes, J. L., Jr.** School: a woman's world. *Child Study*, 1939, 16, 137-138.—(*Educ. Abstr.* IV: 590).

3214. **Johnson, W. H.** Preparing the adolescent for a well-integrated life. *Ment. Hyg., N. Y.*, 1939, 23, 587-593.—The high schools in Chicago have had their curriculum planned to meet the social, physical, emotional, mental, and moral needs of the adolescent. Activities are socialized, lessons are given in dancing and social behavior, and good films are shown in the schools. Rigid physical tests are made and corrective treatment is given where needed. Individual conferences between the teacher and student aid in the determination of the emotional stimulus prompting behavior. A core curriculum supplemented by a wide range of electives is offered. A program in character education has also been put into effect.—*P. Brand* (New York City).

3215. **Kirkpatrick, F. H.** Four mental tests and freshman marks. *J. higher Educ.*, 1940, 11, 38-39.—A freshman testing program at Bethany College obtains correlations for four tests of mental ability as compared with "semester point average" as follows: American Council, 1937, .52; Ohio State, .58; Pintner, .59; American Council, 1938, .57. A further check relating quintile divisions of grades with the four tests reveals no significant relationships.—*R. A. Brotemarkle* (Pennsylvania).

3216. **Kramaschke, W.** Typische Leistungsgruppen ehemaliger Abiturienten. (Typical ability groupings of former candidates for higher degrees.) *Z. Kinderforsch.*, 1939, 48, 193-214.—An analysis

of the former school records in various subjects made by 711 men, most of whom were members of the professional classes. The relationship of present occupation to earlier standing in the different subject fields is demonstrated.—*F. L. Goodenough* (Minnesota).

3217. Lamson, E. E. A follow-up study of a group of nursery-school children. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 231-236.—Measures of chronological age, height, weight, intelligence, reading achievement, and personality development were obtained from 25 nursery-group children and 44 non-nursery-group children. Those who had attended nursery school were superior in mental and organismic age. When comparisons were confined to children of parents belonging to the professional group the differences disappeared. Within the nursery-school group the growth of children who attended an average of 225 days could not be significantly differentiated from that of those who attended an average of 117 days.—*P. S. de Q. Cabot* (Simmons).

3218. Lepley, W. M. The mock clinic as a teaching device. *J. educ. Psychol.*, 1940, 31, 71-73.—Experiences in conducting a class in psychopathology by use of the mock clinic have convinced the author that it may be made a very effective teaching device.—*R. M. Bellows* (Maryland).

3219. Livingood, F. G. The college fraternity and adjustment. *Ment. Hyg.*, N. Y., 1940, 24, 98-106.—A good fraternity organization should provide environment suited to the members' particular needs, prevent unusual mental stress or strain or excessive physical demands by academic, extracurricular and fraternity activities, and strengthen the mental and moral fiber of the individual. Fraternity life provides good disciplinary training, has a socializing influence, stimulates development of personal responsibility, and offers much in the way of guidance for maladjusted individuals. Choice of a fraternity should be carefully considered, and should be subject to regulations regarding pledging, membership, and proper presentation of the problem of fraternities.—*P. Brand* (New York City).

3220. Ormiston, M. The bearing of general and special abilities upon scholastic success at the beginning and end of a secondary school career. II. Senior children. *Brit. J. educ. Psychol.*, 1939, 9, 213-223.—Results of the school certificate examination, taken as the criterion of success at the end of the secondary school career, were analyzed for loadings of *g*, verbal, numerical, spatial, and spatial-imagery factors. The language group of subjects (English language, English literature, history, French, and Latin) showed heavy loadings of *g*, but only English language showed much loading with the verbal factor. The mathematical group showed the *g* factor heaviest in arithmetic, the number factor heaviest in algebra. In the spatial group the *g* loading was moderate, except for its absence from art; the spatial factor was heavy in art, next in botany, less but significant in geography

and geometry; spatial imagery was significant in geometry, less in geography, and low in botany and art. An *x* or character factor was found in the language group, except Latin and French, and in the number group.—*K. M. Cowdery* (Stanford).

3221. Østlyngen, E. Zur Methodik der Untersuchungen über die Beliebtheit der Schulfächer. (Methodology of studying preferences for school subjects.) *Arch. ges. Psychol.*, 1939, 103, 413-445.—The problem of pupils' curriculum preferences is reviewed, 57 investigations being included in the survey. All are prior to the use of attitude scales, as by Thurstone and Remmers. The three fundamental methods of choice, rank-ordering, and rating are discussed, and a means of equating their results is presented. The general advantage lies with the rank-order procedure, although rating is most effective in situations that permit it. A sample questionnaire is included.—*H. D. Spoerl* (American International College).

3222. Post, D. O. Personality development through a social program at the Virginia School for the Blind. *Teach. Forum (Blind)*, 1940, 12, 48-51.—(*Educ. Abstr.* V: 262).

3223. Ribsskog, B., & Aall, A. Neue Grundlagen für die Lehrpläne des Volksschulunterrichtes in den "Lernfächern." (New foundations for teaching plans of public school instruction in the reading subjects.) *Arch. ges. Psychol.*, 1939, 104, 455-578.—This is an abridged German version of a study published in Norway in 1936, consisting of a comprehensive investigation of the effectiveness of Norwegian schools from the points of view of aims, content of the material, recall, capacity of the pupils, etc. It is limited to subjects dependent on personal reading, viz., history, geography, science, nature study, and religion. All techniques of investigation are given in detail, including numerous examples of actual questions used in the comprehensive examinations. The need for and the possibility of obtaining the necessary objective information for other similar studies is everywhere emphasized, and critical recommendations for reform of instructional plans are proposed.—*H. D. Spoerl* (American International College).

3224. Schnepp, A. F. College students' principles of honesty. *J. higher Educ.*, 1940, 11, 81-84.—Questionnaire appraisal of 43 practical situations, based upon the responses of 300 college students. From 5 to 9 items each dealt with the following problems: school cheating, respect for property, "sailing under false colors," lying, taking advantage of people, and bribery. Degrees of approval and disapproval were rated ± 1 to ± 3 , 0 indicating action that was considered tolerable or permissible. Most of the approvals and disapprovals are in the direction of commonly approved behavior, although the failure of certain large numbers of students to express a condemnation of certain specific practices indicates a lowness of standards on their part. In the field of problems dealing with cheating there is a marked change of emphasis from copying from

someone else in an examination, letting someone else copy from you, or copying another student's assignment, to a generally accepted level of letting students copy assignments. It is clear that being an accessory to cheating is considered less worthy of condemnation than the direct act of cheating. Only mild disapproval is given to reporting on those who have been observed. The concept of private property seems to stand very high. Lying and sincerity are very largely related to certain circumstances, the determining factors being harm done to others. The author indicates that these ratings are based merely on abstract principles, and states: "we should expect actual practice to be below the level of principle, and in fact this was actually shown in a parallel study."—R. A. Brotemarkle (Pennsylvania).

3225. Schrammel, H. E., & Gray, W. H. Schrammel-Gray high school and college reading test. Bloomington, Ill.: Public School Publ. Co., 1940. \$1.50 for 25 copies, or 7¢ each in smaller quantities, plus postage. Class record sheet, 4¢ each; individual record sheet, 2¢ each; manual of directions, 1¢ each; all free with 25 tests.—The test consists of two equivalent forms, each of which is composed of 25 paragraphs followed by 3 to 5 objective questions concerning the content. It measures reading rate, general reading comprehension, and comprehension efficiency. The time required for the test is 25 minutes. Validity was measured by correlating college-freshman reading test scores with composite decile ranks computed from scores on intelligence, English, vocabulary, spelling, mathematics, reading, and current history; the resulting correlations ranged from .67 to .87. Correlations between forms were from .65 to .86. The scores are interpreted in terms of percentiles.—J. T. Evans (Butler Hospital).

3226. Seashore, R. H., & Eckerson, L. D. The measurement of individual differences in general English vocabularies. *J. educ. Psychol.*, 1940, 31, 14-38.—A list of words from Funk and Wagnalls' *New Standard Dictionary* was subdivided into 3 parts consisting of common basic words, rare basic words, and derivatives. Parts 1 and 2 have been standardized on various groups of college undergraduates. Standardization has been started with children in the first 8 grades of school. The average undergraduate in the groups used recognized 35% of the common basic words, 1% of the rare basic words, and 47% of the derivative words, representing a total of 155,736 words. Reliability estimates, intercorrelations for various scoring systems of the test, and correlations with other tests are given. Bibliography.—R. M. Bellows (Maryland).

3227. Serafini, R. Note di psicologia applicata all'insegnamento. (Notes on the application of psychology to teaching.) Roma: Perrella, 1940.—The author believes that teaching methods should be based on modern psychology, and offers arguments substantiating his view.—R. Ricci (Rome).

3228. Simmons, E. P., & Bixler, H. H. The new standard high school spelling scale. Atlanta:

Turner E. Smith & Co., 1940. Pp. 64.—This scale includes directions and suggestions for its use, and 64 lessons in spelling for junior and senior high schools.—(Courtesy *J. educ. Res.*).

3229. Snyder, L. M. Why do they leave? *J. higher Educ.*, 1940, 11, 26-32.—A 5-semester study of approximately 3000 withdrawals from the Los Angeles City College shows slightly more men than women withdrawing. While there is no typical profile for withdrawal, the study shows a marked difference in academic mental ability, the withdrawal group having a mean difference of 13.6 on the Thurstone psychological examination and a mean difference of 8.6 on the Iowa silent reading examination when compared with continuing students. Critical ratios are 7.0 in each instance. Withdrawing students work in about the same proportion, but average 7 hours per week more for self-support. There is no significant difference in the statement of their plans for graduation, parents' occupational backgrounds, home backgrounds, or parents' education. After checking to make certain whether the reasons given for withdrawal were reasonable although not complete, it appeared that 46% withdrew to accept employment for self-support, and 80% of these secured their positions on their own initiative before withdrawing; 14% withdrew due to illness; 7% due to change of residence; 12% due to exclusion or failure; 19% due to lack of interest, unsuitable choice of courses, or preference for other schools. The largest proportions of withdrawals are from the semi-professional curricula as compared with the certificate curricula. The evidence obtained does not warrant undue criticism of the curriculum structure, but withdrawals due to lack of interest and unwise choice suggests a need for improvement in counseling.—R. A. Brotemarkle (Pennsylvania).

3230. Super, D. E. The educational value of stamp collecting. *J. educ. Psychol.*, 1940, 31, 68-70.—Stamp collecting does not result in increased knowledge of social studies in high school. No relation between measured intelligence and interest in stamp collecting was found.—R. M. Bellows (Maryland).

3231. Thorndike, R. L., Flemming, C. W., & Stanger, M. Retest changes in the IQ in certain superior schools. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 351-361.—A study made of the Binet test-retest records of about 3000 students attending three New York City private schools, and particularly of more than 1100 cases where the interval between test and retest was over 2½ years. Although the average IQ gain was negligible in two schools, it amounted to over 6 points in the third. No satisfactory explanation for this difference is suggested by the data.—P. S. de Q. Cabot (Simmons).

3232. Thornton, J. W., Jr. Can we predict teaching success? *Calif. J. second. Educ.*, 1939, 14, 244-245.—(*Educ. Abstr.* IV: 676).

3233. Udina, M. L'ordinamento universitario e la Carta della Scuola. (University organization and

the plan of education.) *Ann. Univ. Ital.*, 1939, 1, 85-94.—The problem is viewed from the standpoint of professional orientation.—*R. Ricci* (Rome).

3234. Vernon, P. E. **Educational abilities of training college students.** *Brit. J. educ. Psychol.*, 1939, 9, 233-250.—Analysis of marks of adult students in training-college subjects compared with their scores on group tests of intelligence and of personality traits resulted in conclusions that adult educational abilities are, in general, interrelated in a manner similar to those of children; that three main types of ability are present, scientific-mathematical, humanistic, and practical; that the general educational ability factor correlates only to a small extent with the *g* measured by intelligence tests, while temperament, interests, and work attitudes play a large part. Answers to a personality questionnaire show the better students to be more tense, more dependable, better at concentrating, and less liable to depressions and emotional instability. Appendices give the statistical treatment and student test norms.—*K. M. Cowdery* (Stanford).

3235. Vidoni, G. Il "libretto personale biotipologico," secondo il modello di Pende. (The "biotypological personnel booklet" according to the Pende model.) *Giust. penal.*, 1939, 5, Nos. 6-11.—The author points out the usefulness of a personnel booklet such as has been devised by Pende, whose purpose was to construct a reliable guide for vocational guidance. The first section of Pende's booklet covers the record of the individual's life as divided into the following periods of activity: the period preceding formal education (from birth to the age of six years), from childhood to adolescence, and from adolescence to adulthood. The booklet also includes suggestions on methods of guiding individuals having different vocational leanings, and suggests proper courses of training. If the rules and suggestions given were to be followed, the interests of both the individual and the race would be protected.—*R. Ricci* (Rome).

3236. Voas, W. H. Does attendance at the Winnetka nursery school tend to raise the IQ? *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 363-376.—An analysis of the test records of 114 graduates of the Winnetka nursery school who had attended school from less than one year to three full years gave no evidence that this particular school experience had any determining effect upon the intellectual level or later reading achievement scores.—*P. S. de Q. Cabot* (Simmons).

3237. Washburne, J. N. **Washburne social-adjustment inventory.** Yonkers-on-Hudson: World Book, 1940. \$1.30 per pkg. of 25. Manual, \$0.20.—This inventory is intended for use in guidance and counseling in secondary schools and colleges and for diagnosis in clinics. It is divided by means of the scoring device into the following eight subtests: truthfulness, happiness, alienation, sympathy, purpose, impulse-judgment, control, and wishes. Norms are provided for each of these subtests, as well as for the total score, and provision is made for obtaining a

profile for each individual. The biserial *r* coefficient of validity is .90, and the coefficient of reliability as determined by a retest of college students after one semester is .92.—*M. Keller* (Yale).

3238. Wellman, B. L. **Iowa studies on the effects of schooling.** *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 377-399.—A general summary of published and unpublished reports of investigations made at the Iowa Child Welfare Research Station. Results referring to mental growth changes are listed under three headings: (1) during preschool years, (2) during elementary school years, (3) from preschool to high school and college.—*P. S. de Q. Cabot* (Simmons).

3239. Wheeler, O. A. **Modern psychology and the Spens report.** *Brit. J. educ. Psychol.*, 1939, 9, 224-232.—The later sections of the Spens report of the Consultative Committee on Secondary Education confirm the general impression that, notwithstanding the inclusion of the chapter on the main features of early adolescence and of the appendices concerning faculty psychology and transfer of training, recent psychological discoveries have had a disappointingly small influence on the detailed recommendations. The failure of the committee to deal with the problem of the training of the secondary teacher can be interpreted only as a partial failure to realize the full significance of the modern scientific, and especially of the psychological, approach to the study of education.—*K. M. Cowdery* (Stanford).

3240. Wienert, W. **Berufskundliche Aufklärung von Abiturienten.** (Vocational guidance of graduating students.) *Z. Arbeitspsychol.*, 1938, 11, 49-53.—The student should be acquainted with the following points about the various occupations: (1) the nature and demands of the work; (2) the places and costs of training; (3) the necessary courses of study to be pursued; and (4) the possibilities of advancement. Such public instruction is possible through several media, but the ideal one is a forum where freedom in discussion promotes lively interest.—*N. R. Bartlett* (Brown).

3241. Willis, M. **Developing social attitudes.** *Educ. Trends*, 1939, 7, March-April, 7-10.—The writer believes schools should help students to re-examine their conduct and beliefs slowly, "in terms of their own enlarging world of experiences."—*P. A. Witty* (Northwestern).

3242. Wilson, E. B. **Methodology in the natural and the social sciences.** *Amer. J. Sociol.*, 1940, 45, 655-668.—Incoming college students appear to be already differentiated as to interest in subject matter and method of approach in such a way as to condition their educability. The emotional appeal of the social sciences seems to be a selective factor attracting students and a psychological factor limiting the attractiveness of the scientific method. Whether these factors are due to differences in kind of intellect or in personality are unanswered questions which may be important in any basic discussion of methodology. Particular methods and techniques are universally available though not necessarily universally applicable, but the general principles of

detachment and consensus in the study of observed facts seem indispensable to whatever may be called science, whether natural or social.—*D. L. Glick* (Brown).

3243. Wilson, F. T., & Flemming, C. W. Grade trends in reading progress in kindergarten and primary grades. *J. educ. Psychol.*, 1940, 31, 1-13.—Kindergarten, 1st, 2nd, and 3rd grade children were studied with the aid of reading and letter tests. Early stages in learning the mechanics of reading seemed mainly concerned with forms, names, and sounds of letters; later in the 1st and 2nd grades abilities to write letters and phonetic combinations were significant.—*R. M. Bellows* (Maryland).

3244. Wren, C. G., & others. Techniques of guidance and counseling. *Rev. educ. Res.*, 1939, 9, 196-220.—This is a review article covering the literature appearing from October 1935 to October 1938. The material is organized under the following topics: tests, rating scales, the interview, personnel records, the autobiography and life history, case studies, mental-hygiene counseling, the clinical method of guidance, and group guidance. There are 252 titles in the bibliography.—*M. Keller* (Yale).

[See also abstracts 2719, 2722, 2843, 2847, 2864, 2865, 2900, 2903, 2904, 2912, 2976, 3018, 3029, 3050, 3061, 3075, 3093, 3248, 3249, 3252, 3254, 3277, 3288, 3293, 3300.]

MENTAL TESTS

3245. Anderson, J. E. The prediction of terminal intelligence from infant and preschool tests. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (I), 385-403.—The author emphasizes the necessity for improving present measures of intelligence at the earlier developmental levels. Age progression is an unsatisfactory single criterion for validating tests used in the preschool period. The earlier the measurements are made the greater is the need to observe the following points, especially when predictions are required: (1) the unreliability of single measurements or observations, (2) the necessity for accuracy of observation and for following standardized procedures, (3) the possibility of disturbing factors in a testing situation.—*P. S. de Q. Cabot* (Simmons).

3246. Baker, H. J., & Leland, B. Detroit tests of learning aptitude. (Rev. ed.) Bloomington, Ill.: Public School Publishing Co., 1939. Pupil's record blank, 8¢ each in quantities of 25 or more, or 10¢ for single copies plus postage. Book of pictorial material, \$1.00 a copy, pp. 95. Examiner's handbook with supplement and set of record forms, \$2.50, pp. vi + 173.—The tests are for individual use with persons of all ages down to three years, and are standardized on over 12,000 cases. The subtests are as follows: pictorial absurdities, verbal absurdities, pictorial opposites, verbal opposites, motor speed and precision, auditory attention span for unrelated words, oral commissions, social adjustment A, visual span for objects, orientation, free association, memory for designs, auditory attention span

for related syllables, number ability, social adjustment B, visual attention span for letters, disarranged pictures, oral directions, likenesses and differences. The individual tests have low positive intercorrelations. Retest correlations on 48 cases averaged .959.—*J. T. Evans* (Butler Hospital).

3247. Berger, A., & Speevack, M. An analysis of the range of testing and scattering among retarded children on form L of the revised Stanford Binet. *J. educ. Psychol.*, 1940, 31, 39-44.—196 children referred to the clinic because of suspected retardation were given form L of the revised Binet, which was extended beyond the year at which all subtests were failed. MA computed by including successes beyond this "empty" year was compared with MA computed without including them. MA was increased on the average by 2 months (range of increase, 0 to 14 months). Increases were found in 42% of the cases.—*R. M. Bellows* (Maryland).

3248. Berger, E. Der Sandersche Phantasietest im Rahmen der psychologischen Eignungsuntersuchung Jugendlicher. (The Sander fantasy test applied in the psychological study of youth for vocational purposes.) *Arch. ges. Psychol.*, 1939, 103, 499-543.—The Sander fantasy test, calling for the completion in crayon of a series of six "pictures" barely suggested on the protocol forms, was given to 130 boys ready to leave grade school. The resulting designs were judged from the point of view of position, inclusion of content and meaning, coloring, integration, etc. An appendix contains examples of the treatment of the protocols. No actual pictures or designs are reproduced.—*H. D. Spoerl* (American International College).

3249. Berrien, E. K. Are scores increased on objective tests by changing the initial decision? *J. educ. Psychol.*, 1940, 31, 64-67.—Scores of 154 students based on initial decision on true-false and multiple-choice items were compared with their scores made when some of them changed some items "on second thought." Students are more likely to raise than lower their scores by changing answers. Bibliography.—*R. M. Bellows* (Maryland).

3250. Droe, D. Kritische Gedanken über Rorschach-Versuch und Handschriftenkunde. (Critical reflections on the Rorschach procedure and graphology.) *Arch. ges. Psychol.*, 1939, 104, 353-379.—Because of the equivocal nature of the interpretative items and the consequent lack of agreement among those using the technique, Rorschach testing is to be regarded as a "weighing" rather than a "measuring" device. This is likewise largely true of analysis of handwriting. Rorschach's findings, however, imply psychological mechanisms that can be related to various empirical classifications and processes in normal and abnormal psychology and neurology.—*H. D. Spoerl* (American International College).

3251. Eames, T. H. The reliability and validity of the Eames eye test. *J. educ. Res.*, 1940, 33, 524-527.—This is a battery of seven tests covering such factors as visual acuity and eye dominance. The

test was given twice to 100 individuals; a statistical treatment of the results indicates that each of the tests has high validity and reliability, as does the battery as a whole.—*S. W. Fernberger* (Pennsylvania).

3252. Flanagan, J. C. **The Cooperative achievement tests: a bulletin reporting the basic principles and procedures used in the development of their system of scaled scores.** New York: Cooperative Test Service, American Council on Education, 1939. Pp. 41. \$0.25.—Chapter I deals with the problem of interpretation of test scores. Chapter II points out the necessary functions of test scores and describes the various units of measurement, the methods of obtaining comparability of test scores, and the importance of norms. Chapter III discusses the procedures used to obtain the characteristics essential to a system of scaled scores, such as basic units, a fundamental point of reference, size of units, comparability, standard error of measurement, and percentile norms. The final chapter discusses the uses and limitations of the system of scaled scores used in the Cooperative tests.—*D. B. Lindsley* (Brown).

3253. Flanagan, J. C. **General considerations in the selection of test items and a short method of estimating the product-moment coefficient from data at the tails of the distribution.** *J. educ. Psychol.*, 1939, 30, 674-680.—Emphasis is given to the necessity for estimates of both validity and difficulty of items in the process of item selection. A short method of obtaining validity estimates is given.—*R. M. Bellows* (Maryland).

3254. Frazer, J., Ogden, J., & Robinson, F. P. **The testing of binocular and monocular oral reading skill.** *J. educ. Res.*, 1940, 33, 528-530.—49 college students were tested with three visual-acuity slides of the Betts tests and materials taken from Gray's oral reading check tests with binocular and monocular vision. The authors conclude that the Keystone (Betts) tests for binocular skill (set IV) do not give consistent enough results for diagnostic use at the college level.—*S. W. Fernberger* (Pennsylvania).

3255. Kubo, Y. **[An investigation of a new revised standard Binet test of intelligence.]** *Jap. J. Psychol.*, 1939, 14, 396-407.—Terman and Merrill's test for measuring intelligence was examined, and it was concluded that so far as the measurements applied to those between 7 and 12 years of age are concerned, it is difficult to use them because of inadequacy; certain modifications were suggested.—*R. Kuroda* (Keijo).

3256. Rockwell, J. G. **Intelligence testing: its basic assumptions and unanswered questions.** *Educ. Meth.*, 1939, 19, 80-92.—(*Educ. Abstr.* V: 273).

3257. Urquhart, J. M. **A comparative study of six group tests of intelligence at the pre-qualifying stage.** *Brit. J. educ. Psychol.*, 1940, 10, 79-80.—Abstract.

[See also abstracts 2728, 2729, 2858, 2862, 2899, 3051, 3237.]

CHILDHOOD AND ADOLESCENCE

3258. Aldrich, C. A., & Aldrich, M. M. **Habits belong to children.** *Child Study*, 1939, 16, 111-113; 132.—(*Educ. Abstr.* IV: 585).

3259. Anthony, S. **A study of the development of the concept of death.** *Brit. J. educ. Psychol.*, 1939, 9, 276-277.—An abstract of a thesis for the M. A. degree in the University of London.

3260. Bayley, N. **Mental growth in young children.** *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 11-47.—A 9-year span of the mental development of 61 children from the time they were one month of age was investigated by means of tests given at 28 age levels. Individual children showed variable rates of mental growth. An analysis of the mental-test curves did not support the hypotheses that (1) intelligence is a unit factor growing at varying rates, (2) environmental influences operated sufficiently to differentiate the children. The most likely hypothesis is that intelligence is fundamentally innate and is composed of many factors, some of which do not start functioning at birth but may develop both concomitantly and successively at independent rates. Present efforts to devise tests to be used in infancy which would predict later intelligence have been fruitless. Mental organization itself changes with growth, with its most rapid rate before the age of two years.—*P. S. de Q. Cabot* (Simmons).

3261. Bayley, N. **Factors influencing the growth of intelligence in young children.** *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 49-79.—A report of an inquiry into the factors influencing variations in mental growth curves of 48 children during the first 9 years of life. Body build and skeletal maturity were unrelated to intelligence, and children "who attended nursery gained no advantage in their test scores after a period of nursery-school attendance." Generally the influence of other environmental factors such as socio-economic status was moderate. It is concluded that the most important factors in determining mental growth rates are endogenous ones.—*P. S. de Q. Cabot* (Simmons).

3262. Beck, M. **Die Verwahrlosung als soziologisches Problem.** (Neglect as a social problem.) *Z. Kinderforsch.*, 1939, 48, 151-187.—A discussion, illustrated by brief case histories, of the effects of various types of neglect upon the development of children. It is pointed out that neglect cannot be adequately defined in terms of material factors alone, and that the emotional relationship between parent and child is in reality the factor of chief importance.—*F. L. Goodenough* (Minnesota).

3263. Blatz, W. E. **Femlingarnas självsliv. En studie i barnpsykologi.** (The mental life of the quintuplets. A study in child psychology.) *Natur och Kultur*, 1940. Kr. 6.00.—See XIII: 2218.

3264. Brown, G. D., & Thompson, W. H. **The diabetic child: an analytic study of his development.** *Amer. J. Dis. Child.*, 1940, 59, 238-254.—Data pertaining to body growth, intelligence, heredity, sex

distribution, and incidence of acute infections, obtained from case studies and individual interviews of 60 juvenile diabetic patients, are compared with equivalent data from non-diabetic siblings and from diabetic subjects reported upon by other investigators. The intelligence of the experimental group showed no deviation from the average and no significant deviation from that of their sibling controls or from the average of Minneapolis children (of which population the experimental group were members). No characteristic abnormalities in personality were discovered.—*W. J. Brogden* (Wisconsin).

3265. **Bruin, P. de.** *De philosophie van het spel.* (The philosophy of play.) *Tijdschr. Phil.*, 1939, 1, 719-746.—Theories which emphasize the element of immaturity in play do not offer a satisfactory explanation. Children's play activities are not a preparation for the serious business of living, but rather mature into more adult forms of play by developing control over an increasing range of play objects. If in addition new abilities are developed through play, this is a secondary result of the awakening and maturing of other mental characteristics. Through participation in play sociability develops, because the child is brought in contact with his environment, which involves cooperation (group play) and competition. In organized sports an ulterior goal is superimposed on free play activities, which now become rational and subject to training. The value attached to play and the forms which play takes offer an opportunity for a cultural evaluation of a community.—*H. Beaumont* (Kentucky).

3266. **Bühler, C.** *Praktisk barnpsykologi.* (Practical child psychology.) Stockholm: Natur och Kultur, 1940. Kr. 5.50.—See XII: 6677.

3267. **Burks, B. S.** Mental and physical developmental patterns of identical twins in relation to organismic growth theory. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 85-96.—Physical and mental data on 20 pairs (14 male, 6 female) of presumably monozygotic twins obtained by the Harvard Growth Study were examined. Correlations between 10 pairs of male monozygotic twins were extremely high for the separate traits of IQ, height, leg length, trunk length, weight, iliac width. Low correlations between IQ and anthropometric traits were obtained on 11 twin pairs, while correlations (from .40 to .47) based upon intra-pair differences in three of the anthropometric traits were higher than those ordinarily found between physical and mental traits.—*P. S. de Q. Cabot* (Simmons).

3268. **Castendyck, E.** Refugee children in Europe. *Soc. Serv. Rev.*, 1939, 13, 587-601.—A review of the problems in the physical and medical care, education, and social adjustment of German and Spanish refugee children in Holland, France, England, Belgium, and Switzerland.—*G. S. Speer* (Child Guidance Service, Springfield, Ill.).

3269. **Clapp, E. B.** Growing up with father. *Child Study*, 1939, 16, 139-140.—(*Educ. Abstr.* IV: 586).

3270. **Frank, L. K.** The father's role in child nurture. *Child Study*, 1939, 16, 135-137.—(*Educ. Abstr.* IV: 588).

3271. **Gesell, A.** The stability of mental-growth careers. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 149-160.—This is a report of a study in the prediction of mental growth, being a comparison of data collected on a group of 30 children who, now in their teens, were examined clinically ten years previously. In no case did the course of mental growth appear erratic. 9 illustrative cases and 8 growth curves are presented. "The infant behavior pictures were unambiguously prophetic of the later growth careers." When investigating the consistency and stability of mental growth, clinical judgments have more scientific value than raw quotients. The writer believes no child should be classified as feeble-minded on the basis of IQ alone, since society regards feeble-mindedness as a medico-legal concept.—*P. S. de Q. Cabot* (Simmons).

3272. **Hall, E. M.** A study of children's activity with plastic material and some interpretations of play in infancy. *Brit. J. educ. Psychol.*, 1939, 9, 277-278.—An abstract of a thesis for the degree of M.A. in Education, University of Birmingham.

3273. **Hildreth, G.** Adopted children in a private school. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 179-184.—The intelligence quotients of a group of 54 children who were adopted before entering Lincoln School, Columbia University, were analyzed and compared with the performances of the school population. "So far as our records go there is little evidence that attendance at such a school raises the average ability of these adopted children much above the general population level or that continued attendance in the school is accompanied by an increase in intelligence as measured by intelligence tests."—*P. S. de Q. Cabot* (Simmons).

3274. **Hill, G. E.** Children's interests in comic strips. *Educ. Trends*, 1939, 1, March-April, 11-14.—A questionnaire pertaining to comic strips was administered to 256 children in the intermediate grades. The most favored and frequently-read comics for each sex were tabulated and listed in order of preference. The writer's conclusions are: (1) reading the comics is one of the most common leisure-time interests among children; (2) children like comic strips primarily for the adventure and excitement portrayed; and (3) the children's interests in comic strips are similar to their interests in reading, in the radio, and in the movies.—*P. A. Witty* (Northwestern).

3275. **Hüsgen, R.** Die dermographischen Erscheinungen im Kindesalter. (Dermographic signs in childhood.) *Msch. Kinderheilk.*, 1939, 79, 52-61.—An attempt to test the theory that the latent time and the character of the skin reaction to deep pressure with a blunt-edged instrument is diagnostic of certain neurological types. It was found that the latent time for the reaction decreases with age, that at all ages it is longer on the left side than on the right side of the body, and that there are also definite

age shifts in the character of the reaction. Between the ages of 2 and 6 years the usual reaction was an elevated ridge or wheal; at ages 7-10 this began to be replaced by a reddened area without elevation, or at the later ages by a white mark. At ages 11-14 the wheal was absent in over half the cases. When the subjects were divided into two groups on the basis of nervous excitability, the wheal appeared in 72% of the "excitable" group of 197 cases and in 35% of 23 cases "without signs of the excitable constitution." The age distribution of the two groups was, however, not entirely similar.—*F. L. Goodenough* (Minnesota).

3276. Ihara, M., & Kido, M. [A study on behavior analysis and character reform of a resistant child.] *Jap. J. Psychol.*, 1939, 14, 297-306.—The treatment of a boy 15 years of age at the Protection and Information Bureau for Children is reported. He is by degrees reforming his character through the treatment of the authors on the one hand and the special devotion of all his family on the other.—*R. Kuroda* (Keijo).

3277. Jones, H. E., & Jorgensen, A. P. Mental growth as related to nursery-school attendance. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 207-222.—Subjects of this study were 54 children attending nursery school; they were matched with controls for IQ at a given age level and for parental education. There were no significant differences between nursery-school and control groups. Length of attendance in nursery school was not correlated with IQ gains.—*P. S. de Q. Cabot* (Simmons).

3278. Kamitake, M. Tōsotsu shinri no kenkyū. (Studies on leadership.) *Kyōiku Shinri Kenkyū*, 1939, 14, 370-388; 471-484; 944-971.—10 groups, each consisting of 3 first-grade children, were observed in play situations, and the results were interpreted by Lewin's theory.—*R. Kuroda* (Keijo).

3279. Mullin, F. J. Development of the diurnal temperature and motility patterns in a baby. *Amer. J. Physiol.*, 1939, 126, 589.—Abstract.

3280. Nakae, J. Yōdō no rittai hyōgen. (Children's ways of representing a solid body.) *Kyōiku Shinri Kenkyū*, 1939, 14, 105-117.—280 subjects, including children from 4 years 9 months to 5 years 8 months of age, were required to sketch a tin cylinder, which had a black surface except for the ends, on which red paper was pasted. 11 groups were distinguished, and the results were compared with those of Bühler, Werner, and Takemasa.—*R. Kuroda* (Keijo).

3281. Obonai, T., & Sumi, K. [A study of picture association in children.] *Jap. J. Psychol.*, 1939, 14, 389-395.—The authors selected 20 figures as stimuli after a preliminary test with 166 boys and girls in the second grade of a primary school. In the present experiment 2000 children were tested with these figures and a standard table of association frequency of pictures in children was built up. The pictures were further studied from the standpoint of different ages, sexes, and circumstances; as for the

kinds of pictures, more of them were found in more intellectual children, in boys, and in those living in the city, than in poorly developed children, in girls, and in those born in the country. The frequency of common associations decreases with increasing age, while that of individual ones increases with age.—*R. Kuroda* (Keijo).

3282. Oyama, S., & Kido, M. [An experimental study on plastic molding by children.] *Jap. J. Psychol.*, 1939, 14, 327-338.—The study was undertaken to learn the controlling factors in constructing a solid body. Preschool children were asked to construct solid bodies with clay, either freely or by instruction. In free production their interest was strongly aroused, and along this line a certain suitable form, for instance a human body, was chosen as an object for the requested production. The results from the authors' first study, dealing with the kinds of objects, show that boys generally choose movable objects and girls static ones. They further investigated the sorts of matters chosen by different sexes, but no remarkable difference was found. The products obtained in the second experiment, dealing with production by instruction, were classified with regard to age and sex into pre-differentiated, partially differentiated, and completely differentiated stages as to configuration, and in addition into lying, standing, and sedentary forms with respect to the posture of the body. Types and techniques of production are also discussed.—*R. Kuroda* (Keijo).

3283. Peiper, A. Das "Wegbleiben." (The breath-holder.) *Mschr. Kinderheilk.*, 1939, 79, 236-240.—Pneumographic records of a child during spells of breath-holding were obtained. It is shown that these records have many points of resemblance to those obtained from premature children who have difficulty in coordinating the swallowing reflex with the act of breathing. The suspension of breathing is invariably initiated during inspiration and terminates with expiration, after which the impoverished condition of the blood is quickly remedied by a few apnoidal gasps. The duration of breath-holding does not exceed half a minute and is in no way dangerous to the life or health of the infant. There is no case on record of death having occurred as a result of this behavior.—*F. L. Goodenough* (Minnesota).

3284. Peiper, A. Die Saugstörung. (Disturbances of sucking.) *Mschr. Kinderheilk.*, 1939, 79, 241-255.—The rhythmic interplay of the breathing reflex and the sucking reflex was studied by means of simultaneous kymographic records of the two functions in normal infants, for whom the sucking movements typically occur at approximately twice the rate of the breathing movements, and comparison with similar records of children suffering from inflammation of the lungs, for whom the breathing rate had increased and the sucking rate decreased to a point where the normal relationship between the two was approximately reversed. It was found that in full-term infants the breathing reflex adjusted itself to the sucking movements, indicating that the

latter maintains dominance over the former.—*F. L. Goodenough* (Minnesota).

3285. Pieper, A. *Unreife des Frühgeborenen*. (Immaturity of the prematurely born.) *Mschr. Kinderheilk.*, 1940, 81, 321-333.—An analysis of a number of physiological factors affecting the viability of infants prematurely born. Special emphasis is placed on the level of development of the breathing center in the medulla. Unless this center has reached a certain stage of development the infant cannot survive. Among the survivors the pattern of breathing varies with the level of maturity. The most immature show a type of breathing similar to the Cheyne-Stokes pattern; this gradually progresses through a period of moderately apnoeal manifestations in which intervals of normal breathing are interrupted by opening the mouth with deeper intake of breath, such as occurs more or less rhythmically in the fish. Still later a stage is reached in which the breathing progresses normally except for the feeding periods, when there may be difficulty in adjusting the breathing rhythm to the process of sucking and swallowing. Other incompletely developed neurological and physiological processes are discussed with reference to problems of infant mortality, and also in relationship to their diagnostic significance in determining the extent of prematurity.—*F. L. Goodenough* (Minnesota).

3286. Pieper, R. *Die sogenannten konstitutionellen Depressionen bei Kindern*. (So-called constitutional depressions in children.) *Z. Kinderforsch.*, 1939, 48, 116-141.—A number of case studies of children who from their early years seemed worried and depressed, with little evidence of normal zest for living and doing, are presented in support of the thesis that in at least the greater number of these cases the depression had its roots in a conflict between the child's needs and desires and his experienced level of gratification. Continued frustration thus led to self-depreciation and a flight from reality. The remedy, it is stated, lies in keeping the child occupied with tasks at which he can succeed and in providing plenty of companionship, so that he will have little time for brooding over past failures or other disappointments.—*F. L. Goodenough* (Minnesota).

3287. Riemer, M. D. *Loving versus spoiling children*. *Ment. Hyg.*, N. Y., 1940, 24, 79-81.—Children who come from homes in which they receive no affection, or very little, are as spoiled as those from homes where they are overprotected or overindulged. Understanding the child and giving him love in the form of warm affection and reassurance are the best ways of helping him.—*P. Brand* (New York City).

3288. Ruthenberg, M. *Rechtschreibfehleistung und psychischer Konstitutionstypus*. (Lack of ability in writing and type of psychological constitution.) *Z. Kinderforsch.*, 1939, 48, 73-115.—255 6-grade children were first classified according to Kretschmer's psychological types, and their writing ability was then measured in terms of the number and kinds of errors made in writing from dictation and

from copy. It is concluded that a relationship between constitutional type and writing ability does indeed exist, but that this relationship is not absolute or invariable.—*F. L. Goodenough* (Minnesota).

3289. Schmitz, H. A. *Die Gemeinschaftsbildung im Kindes- und Jugendalter*. (The growth of social intercourse in childhood and youth.) *Z. Kinderforsch.*, 1939, 48, 1-21.—An outline of the developmental stages in social behavior during childhood, with special reference to the shift from an individualized or "I" consciousness to an identification of the self with the group—the "we" feeling.—*F. L. Goodenough* (Minnesota).

3290. Shacter, H. *Toward understanding children*. *Educ. Trends*, 1939, 7, May-June, 11-18.—"We must be cognizant of human conduct in general, of human motivation in general. Then we must become aware of the specific conduct of the particular personality with whom we are concerned."—*P. A. Witty* (Northwestern).

3291. Sonohara, T. *Nisaiji no enkin hosoku*. (Distance perception in a two-year-old child.) *Jap. J. exp. Psychol.*, 1939, 5, 149-172.—The two-year-old child is not able to see distance in abstract perspective figures; form perception really exists, but a phenomenal distance is not yet established.—*R. Kuroda* (Keijo).

3292. Speer, G. S. *The mental development of children of feeble-minded and normal mothers*. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 309-314.—A comparison is made of the mental development of children whose mothers are mentally deficient with that of a group of children with normal mothers. Results "do not support the position of agencies in refusing to place for adoption children of mentally deficient mothers." Further, according to this investigation, physically normal children of feeble-minded mothers may well be adopted provided the children are not older than three years.—*P. S. de Q. Cabot* (Simmons).

3293. Starkweather, E. K., & Roberts, K. E. *IQ changes occurring during nursery-school attendance at the Merrill-Palmer school*. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 315-335.—106 children were given Merrill-Palmer tests and 103 the Stanford-Binet upon entrance to nursery school. The same tests were used in re-examining the children after an interval of 6 to 40 months, while still at nursery school. Analysis of the data showed (1) gains in IQ and percentile level, (2) no relation between varying lengths of nursery-school attendance and IQ changes, (3) an inverse relationship between initial IQ or percentile level and IQ or percentile gains, (4) general corroboration of Wellman's findings concerning the relation between nursery-school attendance and IQ changes.—*P. S. de Q. Cabot* (Simmons).

3294. Stippich, M. E. *The mental development of children of feeble-minded mothers: a preliminary report*. *Yearb. nat. Soc. Stud. Educ.*, 1940, 39 (II), 337-350.—48 children of feeble-minded mothers, who had been placed in boarding homes or institu-

tions before their first birthday, were compared with 29 children who had been separated before their first birthday from mothers of normal intelligence. Tests were given between the ages of 2½ and 13 years. Statistically reliable differences in intelligence were found between the children of the control group and those of the experimental group placed in comparable environments.—P. S. de Q. Cabot (Simmons).

3295. Stirnimann, F., & Stirnimann, W. Der Fußgriffreflex bei Neugeborenen und Säuglingen. Seine diagnostische Verwendbarkeit. (The foot-grasp reflex of the newborn and nursing; its diagnostic significance.) *Ann. paediat.*, 1940, 154, 249-264.—The grasping reflex of the foot was tested during the first two weeks of life in a thousand infants taken in consecutive order of birth in a maternity hospital in Luzern. An additional smaller group made up of cases selected for clinical reasons was also examined by the same method. The procedure in testing was carefully controlled, both as regards the immediate state of the infant at the time of testing and by the use of a special esthesiometer which registered the amount of pressure necessary to elicit the reflex. This was found to be normally between 40 and 70 grams. The reflex was present in 98% of the 1000 control cases; in approximately 2% either it was absent or the only response was fanning of the toes with no tendency to grasp. Evidence from the special cases studied indicated that either the absence of the reflex or its occurrence only in response to pressure outside the normal limits is suggestive of a disturbance or defect in the central nervous system. The reflex sign is particularly diagnostic for cases of birth injury or tetany of the newborn. It was also noted that the foot-grasp reflex is much less variable than the palmar reflex.—F. L. Goodenough (Minnesota).

3296. Symonds, P. M. Economic problems and interests of adolescents. *Sch. Rev.*, 1940, 48, 97-107.—From the results of a questionnaire study of economic interests of adolescents, the author concludes that boys and girls of high school age are more concerned about earning money than about borrowing, spending, lending, or saving.—(Courtesy *J. educ. Res.*).

3297. Takemasa, T. *Yōchienji no ringa*. (Copy drawing in kindergarten children.) *Kyōiku Shinri Kenkyū*, 1939, 14, 1-12.—The author retested Burkhardt's study on the modification of copy drawing in children and verified the same tendency Burkhardt found.—R. Kuroda (Keijo).

3298. Takemasa, T., & Kato, G. *Shōgaku jidō no nendo saiku seisaku katsudō no hattatsu ni tsuite*. (On the development of the process of clay work in primary-school children.) *Kyōiku Shinri Kenkyū*, 1939, 14, 341-355.—1136 subjects were required to represent a person in clay, the time given being 45 minutes. From the working process and the work done it was concluded that in the attitude of the children analytic as well as synthetic types existed and the latter is prone to increase in number as they grow older, although in many older ones

both types are combined; at the early ages the latter shows much more prevalence over the former. Though the cases are few, there is also an undifferentiated type which is neither analytic nor synthetic. The works of the analytic type are almost two-dimensional, but solidity appears with later development; those of the synthetic type develop from a scribble form to a schematic and lastly to a realistic one. Affective representation appears in puberty. Full-length statues are made comparatively often in the early stages, and half-length statues, busts, and sedentary statues mostly in the later periods; masks are made only by superior children of older ages. The neck appears first in the work of 8½-year-old children, and after 9 years the rate of its appearance increases sharply, 90% of the children of 13 years making a neck. The expression of the face develops in three stages, schematic, realistic, and affective. On one hand the working ability of children develops with maturity, but on the other hand it is influenced by education and environment. Artistic work is, therefore, essentially an act of organization, but in early periods maturation plays a prominent role.—R. Kuroda (Keijo).

3299. Thom, D. A., & Johnston, F. S. Environmental factors and their relation to social adjustment: a study of a group of well-adjusted children. *Ment. Hyg.*, N. Y., 1939, 23, 379-413.—This is a study of 120 high school children considered well adjusted, selected from 2 high schools in 2 comparable communities, one a residential suburb, the other a somewhat more urban and cosmopolitan community, to determine the effect of environment on personality. The physical environment, parent attitudes, early training, and IQ of the children were investigated. A follow-up investigation was made 4 years after the original study by means of a questionnaire. Though valid conclusions cannot be drawn because of the breadth of the subject, it was found that well-adjusted children tend to become well-adjusted adults. The positive influence of a healthy environment is stressed.—P. Brand (New York City).

3300. Tuckman, J. A new camp program for adolescent youth. *Ment. Hyg.*, N. Y., 1939, 23, 610-619.—The Sylvan Stix workshop was founded in 1932 to serve as a practical tool to meet the problem of unemployment. The emphasis is more on approximating the pressures of city life than offering the advantages of a traditional camp. A compulsory work program of a difficult nature was used to introduce into workshop experience the pressures of day-to-day living. An agricultural program was developed. The initial adjustment of a large number of the boys was not easy and enthusiasm was difficult to arouse. In the last few years the workshop has been useful as a case-work tool and has made evident a new and wholesome attitude on the part of the boys.—P. Brand (New York City).

[See also abstracts 2787, 2858, 2888, 2902, 2904, 2907, 2911, 2915, 2929, 2953, 2993, 3013, 3041, 3090, 3094, 3126, 3135, 3211, 3213, 3214, 3230, 3247.]

A COMPREHENSIVE ABSTRACTING AND INDEXING JOURNAL OF THE WORLD'S LITERATURE
IN THEORETICAL AND APPLIED BIOLOGY, EXCLUSIVE OF CLINICAL MEDICINE

BIOLOGICAL ABSTRACTS

Under the Auspices of the Union of American
Biological Societies, with the Cooperation of Biologists Generally

In order to serve scientists interested in a limited field of Biology (beginning January 1939) BIOLOGICAL ABSTRACTS is not only published as a whole at \$25 for the complete volume, but it is also published in five separate monthly sections as follows:

ABSTRACTS OF GENERAL BIOLOGY \$4, ABSTRACTS OF EXPERIMENTAL ANIMAL BIOLOGY \$8, ABSTRACTS OF MICROBIOLOGY AND PARASITOLOGY \$5, ABSTRACTS OF PLANT SCIENCES \$6, and ABSTRACTS OF ANIMAL SCIENCES \$5.

Subscribers to one or more of these sections will receive the Indexes to the whole of BIOLOGICAL ABSTRACTS. (Foreign subscribers add 50c per section for postage.)

SEND FOR A SAMPLE COPY!

BIOLOGICAL ABSTRACTS, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, PA.

CHARACTER and PERSONALITY

An International Psychological Quarterly

Editor: CHARLES E. SPEARMAN, London

Associate Editor in U. S. A.: KARL ZENER, Duke University

Assistant Editor in Great Britain: JAN MELOUN, London

The Journal, devoted to problems of personality in a wide sense, contains:

1. Reports of original researches;
2. Relevant discussions of psychological method, theory, and history;
3. Surveys of recent investigations in special fields or countries;
4. Contributions of allied fields to the study of personality;
5. News and notes; book reviews.

Published simultaneously in Durham, N. C., and London

Price \$2.00 per annum

THE DUKE UNIVERSITY PRESS
DURHAM, N. C.

Changes of Address

must be in the Publications Office by the 15th of the month preceding the issue to be affected.

JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY

JOURNAL OF EXPERIMENTAL PSYCHOLOGY

PSYCHOLOGICAL ABSTRACTS

PSYCHOLOGICAL BULLETIN

PSYCHOLOGICAL MONOGRAPHS

PSYCHOLOGICAL REVIEW

The American Psychological Association

Publications Office

The Ohio State University

Columbus, Ohio

PHILOSOPHIC ABSTRACTS

Dagobert D. Runes, Editor

A cumulative index of significant book and periodical literature in philosophy.

Brief reviews reflecting the opinions of the author rather than those of the reviewer.

Covering sine ira et studio all schools of philosophy.

Regular reports, in spite of the present difficulties in communication, from all parts of the world.

Welcomed by librarians as an authentic bibliographical aid; by teachers as a practical guide; by research men as an invaluable source of material.

Those desiring to keep the **Abstracts** with the first issue as a permanent record of philosophic research may send their reservations together with a remittance of \$4 for one year, or \$7 for two years (foreign subscribers remit an additional \$1 per annum), to Philosophic Abstracts, 884 Riverside Drive, New York, N. Y.

You may inspect a sample copy at your nearest university library.

